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THE EFFECT OF PARENTAL AGGRESSION ON CHILDREN'S COGNITIVE DEVELOPMENT

SUSAN ELIZABETH CRAIG
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**THE EFFECT OF PARENTAL AGGRESSION
ON CHILDREN'S COGNITIVE DEVELOPMENT**

BY

**SUSAN CRAIG
B.A., Emmanuel College, 1970
M. ED., Bridgewater State College, 1974
M.A., University of New Hampshire, 1980**

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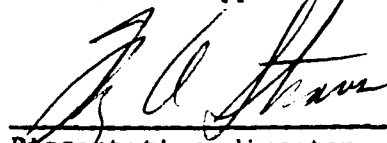
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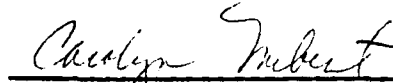
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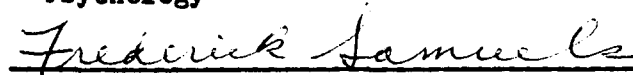
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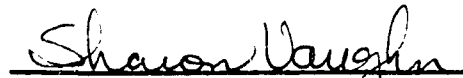
Sally Ward, Associate Professor of Sociology



Carolyn Mebert, Associate Professor of
Psychology



Fred Samuels, Professor of Sociology



Sharon Vaughn, Assistant Professor of
Education

April 18, 1986
Date

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TABLE OF CONTENTS

ACKNOWLEDGEMENTS.....	iii
LIST OF TABLES.....	vii
LIST OF FIGURES.....	viii
ABSTRACT.....	ix

CHAPTER	PAGE
I. INTRODUCTION.....	1
II. DEFINING COGNITION.....	3
Theoretical Formulations.....	3
Summary of Classic Models.....	3
A Systemic Approach.....	3
Contributions of Cognitive Theory.....	4
Cognition and the Self.....	7
The Self as a Cognitive Representation.....	7
Components of the Self.....	8
III. THE CONTEXT OF DEVELOPMENT.....	11
Demographic Influences.....	11
Parental Influences.....	14
Definitions of Parent.....	14
Different Typologies of Parenting Behavior.....	14
The Constructionist Position.....	16
The Impact of Physical Force.....	18
Self Differentiation.....	20
On Competency.....	22
Specification of the Model.....	25

IV.	METHODOLOGY.....	26
	Hypotheses.....	26
	Sample.....	26
	Independent and Dependent Variables.....	29
	Parent Behavior Measures.....	30
	Cognitive Style Measures.....	31
	Cognitive Functioning Measures.....	33
	Self-Esteem.....	34
	Data Collection.....	35
	Data Analysis.....	37
V.	DIFFERENCES BETWEEN HANDICAPPED AND COMPARISON GROUPS....	39
	Social and Family Characteristics.....	39
	Cognitive Characteristics.....	41
	Parental Use of Reasoning, Verbal Aggression and Violence.....	43
	Qualitative Differences.....	46
VI.	AGGRESSION AND COGNITIVE DEVELOPMENT.....	50
	Verbal Aggression.....	50
	Violence.....	54
	Memory.....	57
	Locus of Control.....	57
	Achievement.....	57
	Educational Program Implications.....	60

VII. MULTIVARIATE ANALYSIS OF COGNITIVE DEVELOPMENT.....	62
Peabody Individual Achievement Test (Standard Scores).....	69
Peabody Picture Vocabulary Test.....	70
Wechsler Intelligence Scale for Children - Digit Span Score.....	72
Nowicki-Strickland Lifespan Locus of Control Test..	72
Matching Familiar Figures Test (MFFT).....	74
Self-Esteem.....	75
VIII. CONCLUSIONS.....	80
Self-Esteem as an Intervening Variable.....	80
Parental Aggression and Locus of Control.....	82
Handicapped Children are Victims of Violence.....	83
Handicapped vs. Comparison Groups.....	83
Intergenerational Cycle.....	85
APPENDIX I.....	88
Interview Schedule.....	89
Letters Sent to Parent.....	97
APPENDIX II.....	101
Notes on Logo.....	102
BIBLIOGRAPHY.....	106

LIST OF TABLES

TABLE NUMBER		PAGE
TABLE 5-1	Sample Characteristics.....	40
TABLE 5-2	Group Differences on Measures of Cognitive Development.....	42
TABLE 5-3	Percent of Parents Using Each Technique.....	44
TABLE 6-1a	Relation of Parental Verbal Aggression to Child's Cognitive Development.....	51
TABLE 6-1b	t Test Values for Relation of Parental Verbal Aggression to Child's Cognitive Development.....	52
TABLE 6-2a	Relation of Parental Violence to Child's Cognitive Development.....	55
TABLE 6-2b	t Test Values for Relation of Parental Violence to Child's Cognitive Development.....	56
TABLE 7-1	Mean, Standard Deviations of Regression Equation Variables.....	63
TABLE 7-2	Correlation Matrix of Regression Equation Variables.....	64
TABLE 7-3	Multiple Regression Analysis of Cognitive Development.....	65
TABLE 7-4	Multiple Regression Equations With Self-Esteem as a Predictor Variable.....	67

LIST OF FIGURES

FIGURE NUMBER		PAGE
FIGURE 3-1	Theoretical Model of the Predicted Relationship Between Parental Aggression and Children's Cognitive Development.....	24

ABSTRACT

THE EFFECT OF PARENTAL AGGRESSION ON CHILDREN'S COGNITIVE DEVELOPMENT

by

Susan Craig
University of New Hampshire, May, 1986

The study investigated the relationship between parental aggression and children's cognitive development. Parental aggression was studied in terms of both verbal aggression and use of physical force. Indexes developed from form N of the Conflict Tactics Scales (Straus, 1979) were used to measure both variables at three levels: low, middle and high. The dependent variables were measures of the child's (A) cognitive style, (B) cognitive functioning and (C) self-esteem.

Previous research indicates a relationship between abuse and cognitive development: Ackly (1977), Elmer (1967), Martin (1979). A methodological limitation of these studies is that they used samples of children previously identified as abused. The sample in the current study consisted of fifty-two children and their parents attending the Portsmouth elementary schools during the years 1983-1985. The sample was stratified on the basis of whether or not the children were labeled emotionally disturbed.

The major findings of the study indicate that parental verbal aggression is directly related to language development. The associated delays may foster a cognitive style which has negative consequences for achievement.

Parental violence is related to delays in children's development of an internalized locus of control even when verbal aggression is controlled for. The study hypothesized that self-esteem played an intervening role between parental use of force and/or aggression on the child's cognitive development. This relationship was not observed.

The handicapped children in the sample experienced parental aggression more often and at a greater level of severity than did their non-handicapped peers.

The findings about the nature of the relationship between parental aggression and children's cognitive development have implications for further study of the effects of parental violence. They also suggest that an understanding of the intergenerational transmission of child abuse involves cognitive deficits as well as behavioral and psychiatric processes. The research identifies the enmeshment of parent and child in terms of definitions of the world as contributing to sustained patterns of parental aggression. It suggests that the development of greater self-differentiation and competency in both parent and child might represent an important step in reducing parental violence.

Chapter 1

INTRODUCTION

The purpose of this study was to investigate whether a relationship exists between parental aggression and children's cognitive development. Parental aggression was studied in terms of both verbal aggression and physical violence.

The rationale for such an investigation is that studies of abused children have indicated a relationship between abuse and cognitive development: Ackly (1977), Collins (1974), Elmer (1967), Martin (1979). A methodological limitation of these studies is that they used samples of children previously identified as abused. This study investigated the relationship between parental aggression and cognitive development in a sample which had not necessarily been identified as abused. The sample was stratified on the basis of whether or not the children were labeled emotionally handicapped.

There are many issues surrounding the discretionary nature of labeling: Hobbs (1976), Blatt, Biklen and Bogdan (1977). Research by Hallahan (1977) and Epstein (1977) indicates that definitions of emotionally disturbed behavior vary according to adult expectations and availability of services. However, it may logically be argued that labeling a child as emotionally handicapped reflects some variation from the norm in either achievement or cognitive style. Current research suggests that the experience of violence in the parent child relationship may be the basis for some of the deviations in development observed among special education students: Martin (1979), Money (1982), Helfer (1985).

Confirmatory research is necessary to determine if violence affects cognition in the manner in which special education students are observed to be impaired.

Most studies of the relationship between child abuse and cognitive development have focused on mentally retarded children (e.g., Sangrund, 1974; Elmer, 1967; Green, 1981). Recent reassessments of this field of inquiry have called for research into more subtle cognitive effects which may be associated with parental aggression: Martin (1979), Helfer (1985).

This study was an effort to establish documentation of the relationship between child abuse and cognitive disorders associated with the category emotionally handicapped.

Chapter 2

DEFINING COGNITION

THEORETICAL FORMULATIONS

Summary of Classic Models

Major theories of child development have historically divided between maturation models (Gesell, 1940; Terman, 1925), and learning models (Watson, 1924; Skinner, 1938; Bandura, 1973; Sears, 1946). Maturation theorists have focused on how patterns of growth and development differ with age. The model is quite deterministic, defining development as the unfolding of the person's genetic inheritance. Learning theories on the other hand see human development as a series of behaviors which occur as a result of environmental stimulation. The person is essentially what s/he has learned, whether that has been through the process of identification (psychoanalytic theory), reinforcement (classical and operant conditioning theories), imitation and modeling (social learning theory) or assimilation and accommodation (cognitive theory).

A Systemic Approach

Current research favors a more holistic orientation which acknowledges the interaction of both heredity and environment in human development. Recognition of the fact that both play a role in human development has led to the formulation of ecosystemic models to explain their reciprocal relationship (Bronfenbrenner, 1979). These models

define development as an interactive process between the environment and person which continually modifies both. They therefore facilitate a sociological analysis of the historically psychological phenomenon of human development.

The primary hypotheses of the current study posit a relationship between what happens in children's ecosystems and their cognitive development. Systemic models have not specified how variations in child's ecosphere affect this area of development, nor have they delineated how cognitive and social development relate to one another. It seems necessary, therefore, while accepting the systemic model as perhaps best describing the contextual process in which cognitive and social development occur, to draw from the work of cognitive theorists, including Piaget, Kohlberg, and Kagan to describe what actually occurs in this process.

Contributions of Cognitive Theory

A review of the literature on both cognitive and systemic theories suggests that they are quite complementary. Piaget defines development as a continual process of assimilation and accommodation to achieve equilibrium (Piaget, 1963). Bronfenbrenner defines the ecology of human development as an accommodation between the developing person and the environment (Bronfenbrenner, 1979). Both focus on the active participation of developing persons in their own development. In systemic ecological theory, children respond to other components of their ecosystem in a manner which either modifies these components or which allows the child's adjustment to their demands. In cognitive theory, the child's mind actively processes experiences, changing and adapting to the world. Both describe the developing person as being motivated to achieve

an "optimal match" (Kohlberg, 1969, p. 356) or a goodness of fit (Bronfenbrenner, 1979) between what Kohlberg describes as "the child's action system or expectancies and ... experienced events" (Kohlberg, 1969, p. 356).

Both models discuss experience in terms of adaptation to the environment. This is easily observed in the ecological model where children's imitative play often reflects the definition of the situation held by the major figures in their ecosystem. On a more abstract level, cognitive theorists tell us that the same thing is happening in the child's developing mind. Thinking involves constant assimilation and accommodation to an environment and results in the organization of the mind according to what it defines as real. Kohlberg describes how this occurs in language quite familiar to ecosystemic theorists: "The cognitive-developmental assumption is that basic mental structure is the result of an interaction between certain organismic structuring tendencies and the structure of the outside world rather than reflecting either one directly" (Kohlberg, 1969, p. 352).

The organized patterns of perception and behavior (schemata) which the children develop are the result of their active manipulation of the world around them. As the child passes through various stages of development (sensorimotor, preoperational, operational, concrete, formal) qualitative differences occur in this organizational system.

Through experience, shifts occur in both the number and type of organizational categories available to the child. For example, very young children are quite global in their classification of experiences: me, not me. Through increasing age and experience, classifications become increasingly more complex and it becomes possible for the child to classify the same experiences across a variety of

categories. This progress, according to Piaget, is in part maturational. However, Piaget and Kohlberg after him are quick to acknowledge the role of experience in stimulating intellectual growth as well as in modifying and structuring of schemata (Kohlberg, 1969, p. 357; Piaget, 1963).

What cognitive theorists describe is quite different from learning as it is defined in behaviorist or social learning models. In these models learning is reduced to behaviors which can be replicated. In educational settings it becomes synonymous with achievement.

What cognitive theorists are talking about is the "representational or coding process intervening between stimulus (material to be learned) and response (behavior observed change as a result of training)" (Kohlberg, 1969, p. 348). Children construct cognitive representations of the world. The content of these representations varies with variations in experience. Significant others in the child's ecosystem "select out" those experiences they consider important for a child to have. Through learning, which occurs by processes such as modeling, reinforcement and repetition, the child develops beliefs about the world which reflect the values influencing the significant others. "The cognitive representation might alternatively be called a belief about the content of the environment" (Baldwin, 1969, p. 328). This belief system or cognitive representation then: "acts as the affective environment which arouses motives and emotions and guides overt behavior toward its target or goal" (Baldwin, 1969, p. 326).

These cognitive representations reflect the information the child has about the world both in terms of its structure and in terms of beliefs about the relationship of its parts. They essentially are the: "environmental, emotional, sociological, physical and psychological

elements that permit individuals to receive, store and use knowledge or abilities" (Dunn, 1983, p. 496).

Kagan describes these as a set of "executive processes" which determine children's cognitive style (Kagan, 1984, p. 229). Kagan's description is synonymous with what Flavell describes as metacognition (Flavell, 1977). These executive processes vary as the ecosystem of the child varies. These variations in cognitive style produce different problem-defining and problem-solving behaviors. They are also thought to be related to variations in children's performance on standard measures of intelligence and achievement (Kagan, 1984; Carbo, 1983).

COGNITION AND THE SELF

The Self as a Cognitive Representation

Central to all development is the emergence of the cognitive representation of the self: both as object against which other objects are evaluated and as subject - the reflective agent who interprets: "the types of discrepancies in experience which lead to forward movement, to backward movement and to fixation or lack of movement" (Kohlberg, 1969, p. 361).

The interactional process by which the self develops is perhaps described best in the work of symbolic interactionalists such as George Mead (1964), Charles Horton Cooley (1970), and Sheldon Stryker (1980). According to these theorists the self develops through a three-fold process: we form beliefs about how we appear to others; we then form beliefs about their judgments of how we appear to them and finally, in response to the imagined judgment, we develop pride, shame, high or low self-esteem (Cooley, 1970).

From early infancy, the children begin to correlate their behavior with the reactions of others. Thus, they develop series of expectations and begin to understand the expectations of others. Gradually, the "I" or the spontaneous part of the self separates from the me part which comes to represent the internalized norms of society. The behavior of parents is very important at this point, since from their response the child forms the basis for the self's labeling of his/her actions as good or bad (Newson, 1968).

The context or ecosystem of the developing child "molds" the self which in turn influences other areas of social and cognitive development. Information about the self as well as about the larger world which children assimilate from their ecosystems forms the basis upon which the child evaluates and interprets: "the concept of self, in its relationship to concepts of other people, conceived as being in a common social world with common social standards" (Kohlberg, 1969, p. 349).

Components of the Self

The self system is conceptualized in the literature as comprised of at least two parts, the self-concept and self-esteem (Wylie, 1968). The self-concept is: "something that emerges and develops gradually, primarily out of social experience" (Rosenberg, 1965, p. 15).

It is the objective experience of the self, the "picture of the self" encompassing the individual's thoughts and feelings about who s/he is (Rosenberg, 1965, p. 7). It is similar to the "me" described by Cooley and Mead in that it contains internalized reflections of the "generalized other": what I look like, what things I do well, etc.

According to Maccoby, the development of the self-concept is similar to the development of other cognitive structures in the child: "We see a developmental progression.... Initially children think of themselves in terms of appearance and activities...gradually they begin to conceptualize themselves more abstractly" (Maccoby, 1980, p. 266).

The self-concept then is a social identity involving children's perceptions of how they see themselves (the extant self), how they would like to see themselves (the desired self) and how they show themselves to others (Rosenberg, 1965).

Self-esteem, on the other hand, refers to a process of self-evaluation. Coopersmith defines this self-evaluation or self-esteem as the subjective experience of the self (Coopersmith, 1967). This definition approximates the "I" of symbolic interactionalism. Both Maccoby (1980) and Coopersmith (1967) acknowledge that self-esteem varies with the amount of respectful, concerned treatment received from significant others. While other factors appear to contribute to a person's self-esteem (history of success, individual values, individual response to devaluation) family interactions, particular child-rearing techniques, are considered very influential for the pre-adolescent child (Coopersmith, 1967).

It would seem then that experiences in the family environment are important influences on children's developing cognitive style as well as their self-definition. These may affect the child's ability to successfully achieve in the school environment. Children whose home experiences are congruent with the expectations of the public schools will learn to organize their world in a manner advantageous to achievement. They will grow-up defining such behaviors as goal-setting, persistence at a task and cause and effect relationships as

characteristics of the "real world." This will facilitate an easy integration into the school mesosystem since many of its expectations will correspond to the expectations of the child's home and early environment. So too, children who have learned to view themselves with respect will seek out experiences in school which affirm this self-perception.

However, for children whose family system and early environment define a different set of values as real, creating an interface between home and school may be more difficult. They may lack experience in the behaviors required for achievement. Discrepancies between the home and school environments may result in confusion for the child as well as in frustration at being unable to access the "rules for success."

Children who have come to define themselves as bad or unworthy will seek out self-fulfilling definitions in the school environment. Patterns of passivity and other self-deprecatory behaviors may inhibit their ability to succeed in a public school environment.

Chapter 3

THE CONTEXT OF DEVELOPMENT

DEMOGRAPHIC INFLUENCES

Developing a model to test the relationship between parental aggression and children's cognitive development first requires the identification of other characteristics of the parent-child relationship associated with children's cognitive style and cognitive functioning. Child development research suggests that certain demographic characteristics of the ecosystem influence children's cognitive development. Parents' educational level and socioeconomic status play major roles. Socioeconomic status appears to influence goals parents have for their children as well as the behaviors they reinforce to achieve these goals (Kohn, 1969). Kohn's study found that both working-class and middle-class parents value child attributes which respect the rights of others. However, middle-class parents focus on internal processes of self-direction and empathic understanding while the working-class parents are concerned with conformity to externally defined standards (Kohn, 1969, p. 21).

This class difference in focus on internal vs. external process appears again in the literature on impulsivity (Kagan, 1984; Goldstein and Rollins, 1983) and locus of control (Kagan, 1984).

Socioeconomic status also affects patterns of child-rearing (Maccoby, 1980, p. 402; Baumrind, 1978), linguistic development (Bernstein, 1965), and communication patterns (Minuchin, 1967). The widely perceived impact of socioeconomic status on children's development

is reflected in the consistent federal funding for Project Head Start, an early education program which has as its primary goal to bridge the gap between the "disadvantaged" and their more affluent peers to ensure equality of educational opportunity in the public schools.

The educational level of the parent affects their knowledge of child development. It also influences the types of activities they engage in with the children as well as quantity and quality of their verbal exchanges.

Characteristics of neighborhoods are also thought to affect the child's development. The surroundings children find themselves in become extensions of their developing self: "my house", "my street" (Schiamberg, 1985). Differential effects on development may be expected on the basis of how congruent the neighborhood is with the definition of reality the child is learning in the home, as well as how many linkages children perceive between their neighborhood and other institutions in the mesosphere (Garbarino, 1982, p. 23).

Because children's primary cognitive activity is play, the neighborhood's capacity to provide adequate planned and unplanned play areas is considered critical to their development. Neighborhoods where play areas are readily available and responsive to a broad range of childhood needs are considered most beneficial to the child's development (Schiamberg, 1985).

Family structure characteristics including birth order (Clausen, 1964) and single parenthood (Parish and Boyd, 1983; Bronfenbrenner, 1958) also appear in the literature as possible ecosystemic influences on the child's development. Clausen references the work of L. D. Harris in characterizing firstborn sons as having an inner focus which favors synthesis or connectedness. Later born sons appear more other directed,

preferring an analytic learning style which Harris termed "disconnectedness" (Clausen, 1964, p. 21). Studies by Sears, Maccoby and Levin (1957), Kagan and Moss (1962), Rosenberg, Goldman and Sutton-Smith (1969) are cited by Schiamberg (1985) as supporting the influence of birth order on variations in the child's cognitive and social development.

Single parenthood has frequently been assumed to have a debilitating effect on children's prosocial behavior, school achievement and sex role identification in males (Bronfenbrenner, 1958; Kinard and Reinherz, 1984). Parish and Boyd report that according to Rotter, single parenthood fosters an external locus of control in children: "children from father absent families may experience a massive dose of 'fate' that in turn fosters an external locus of control" (1983, p. 287). "Mother loss can indeed foster an external locus of control in males" (1983, p. 318).

The dramatic increase in single-parent families has required a careful review of these assumed relationships. Current research indicates that the effect of the single parent structure on children's cognitive development varies according to other ecosystemic features (Cashion, 1984). Certainly the financial problems endemic to single parent families can create problems in providing for basic survival. Economically strapped parents often lack the time, energy and money to provide their children with cognitively enriching experiences. The degree to which the single parent family is isolated from supportive child-care helpers particularly of the opposite gender may also affect how this structural characteristic influences the child's cognitive development.

PARENT INFLUENCES

Definitions of Parent

Parenting is a term which has evolved in the literature from a definer of stereotypic sex-role expectations to a definer of androgynous adult role expectations in relation to children. As a construct it is usually thought of or used in one of two ways: as the biological procreation of offspring or as the caretaking behaviors associated with the socialization and physical well-being of children for whom one is legally responsible.

Past studies of child development indicated that children raised in institutions had delayed social and cognitive development (Dennis and Sayegh, 1965). This finding was often interpreted to mean that the experienced delays were the result of a lack of or an absence of bonding with the biological parent or "maternal deprivation". Reassessment of these studies suggests that the delays were more a result of a lack of stimulation in the child's environment than lack of a single biologically related caretaker (Rutter, 1971). The focus of parenting studies then switched to caretaking behaviors: what child-rearing practices the adults use to provide for the children they are responsible for.

Different Typologies of Parenting Behavior

A variety of models have been developed to specify significant aspects of parenting behavior. One of these divides parenting techniques along the lines of love-oriented, relying on the love relationship with the parent, and power assertive.

In an oversimplified way ... discipline which focuses on using the love relationship with the child tend to be correlated with internalized reactions to transgressions (feelings of guilt,

self-responsibility, confession) and with non-aggressive or cooperative social relations.... Power asserting techniques are more likely to correlate with externalized reactions to transgressions (fear of punishment, projected hostility) and with non-cooperative, aggressive behaviors (Becker, 1964, p. 176-177).

Studies of cognitive development provide similar descriptions:

"Children living in a positive social climate will be more willing to learn and more accepting of social norms than children living in a hostile or frightening climate" (Kagan, 1984, p. 218).

Another popular typology of parent child rearing behavior is Baumrind's authoritarian, authoritative, permissive model (Baumrind, 1978). The authoritarian parent's child tends to be withdrawn, distrustful, less assertive, less independent. Children of authoritative parents are more likely to be self-reliant, content, explorative, self-satisfied, self-controlled, self-reliant. Children of permissive parents are the least self-controlled, self-reliant and explorative of all three groups (Baumrind, 1978, p. 223-276). Authoritarian parents value obedience and the use of powerful, punitive measures to curb the child's self-will. The authoritative parent uses reasoning to explain parental policies. The permissive parent accepts all behavior from the child in an effort to allow a maximum freedom of expression.

Variables such as "love oriented", "power oriented" and "positive social climates" are difficult to quantify as are, though perhaps to a lesser extent, "authoritarian", "authoritative", "permissive". This makes it difficult to specify exactly what aspect of parenting behavior is being measured. Another problem stems from a tendency on the part of researchers to define the dependent variable as observable behavior or learning rather than as definitions of reality which organize cognition. Perhaps the greatest impact parenting style has on development is the way it defines for the child what context clues to look for in a situation

and which ones to ignore. Parents provide children with the gestalt with which they see the world.

These models pay virtually no attention to the reasoning process which may precede the choice of child rearing practices by the parent. There even seems to be a hint of logical positivism in the delineation of these typologies: the love oriented appears "better" than the power assertive; the authoritative superior to the permissive or authoritarian. There is no acknowledgement of the role individuals play in organizing their own reality according to the cognitive representations we have discussed.

The Constructionist Position

If we assume that reality is a social-cognitive construct and that as such, a multiplicity of meanings exist, then it follows that the child rearing practices we observe parents participating in stem in some way from their perception of what the world is really like: "Parents actively organize the reality of both social and non-social objects into schemata that guide their behavior" (Sigel and Laosa, 1983).

Based on their construction of reality, parents develop an evaluation network that predisposes them to how they will act, when they will act and upon what. This "constructionist" position is consistent with the tenet of symbolic interactionism which states "if men define situations as real, they are real in their consequences" (Thomas, 1928). Research by Sigel and Laosa (1983) identifies seven "folk" models of parenting based on parental beliefs about how children learn and what the external world is really like. These models also present varying perceptions of the parent-child relationship and how much parental control is appropriate within the context of this relationship.

The Maslow model assumes that children learn best through nondirective experience. The external world is a positive place. The parent-child relationship is essentially an enabling friendship which requires little parental control. The Gesell model is similar in defining the world as positive. The child is assumed to learn through stages and although there is not much control by the parent, they are assumed to "know more" than the child and are therefore responsible for orchestrating the "right conditions" for learning.

Four of the remaining models define the parent-child relationship as hierarchical and expect the parent to exert control in the relationship. They vary in how they define learning and the degree of hostility they attribute to the external world. The obedience self-reliance model emphasizes self-discipline and self-reliance in a world which is perceived as challenging at best. The parents' job is to teach children how to cope. The Adlerian model believes children learn by imitation and experience. The best world for the Adlerian is a cooperating group and emphasis is placed on the parental duty to teach appropriate group skills, especially through modeling. The behaviorist model defines learning as a conditioning process. It presumes definitions of good and bad are the prerogative of those with the greatest power. The parental duty in this model is to teach children how to achieve power (with agents of social control) through conformity. The Calvinist model also defines learning as conditioning although greater emphasis is placed on internalization of social norms through guilt inducing techniques. The world is perceived as so hostile in this model that the parents' role becomes one of keeping the child safe from its corruption. The seventh model delineated is the authoritative-transitional model. There is an ambiguous definition of how learning occurs in this model. The parents

vacillate between imposing parental definitions on the child and letting him/her learn through exploration of the environment. This model tends to result in parental behaviors characterized by inconsistency and a conflictual parent-child relationship. What is interesting about the authoritative transitional model is that it is frequently used by parents who were victims of abuse as children (Sigel and Laosa, 1983).

It is possible then, that studies of the effects of specific parenting style on child characteristics could produce clearer relationships if greater attention were paid to the specification of both dependent and independent variables. There must also be a recognition of the impact of the parents cognitive representation of their own role on the parental behaviors they choose. Finally, these studies must extend their definition of the parent-child relationship to include the context in which the relationship is embedded.

THE IMPACT OF PHYSICAL FORCE

Like other areas of research on the parent-child relationship, research on the effects of child abuse is inconclusive. There are several reasons for this. Like all areas of inquiry into family life, access to information about parental use of aggression is limited. There are fairly strong cultural norms which define what happens within the family as beyond the limits of scientific inquiry. Study of domestic violence has been further hampered by a cultural approbation of violence as a legitimate method of social control. The legitimization of violence is particularly strong when applied to children. Although current research indicates a decrease in severe child abuse in two partner families, physical punishment continues as a legitimate child rearing technique (Straus and Gelles, 1986). Because the use of force against

children has been accepted behavior, it is understandable that little effort has gone into studying its effect.

The original definition of non-accidental injury in children as problematic came from the medical community. In 1962, Henry Kempe identified the battered-child syndrome as "a clinical condition in young children who received serious physical abuse, generally from a parent or foster parent " (Kempe et al., 1962). The medical model favors a clinical interpretation of events. In the case of child abuse, this interpretation led to the assumption of pathology on the part of the abuser: "In most cases some defect of character structure is probably present; often parents may be repeating the type of child care practiced on them" (Kempe et al., 1962, p. 24).

This assumption of pathology had several ramifications, the most significant being that it slowed down efforts to study the structural causes of domestic violence. It fostered psychiatric intervention techniques for perpetrators. These were directed at individual recovery rather than systemic change. It provided an impetus for child welfare programs which remove children from their homes.

Reliance on the medical model also led to some serious methodological problems in studying the effect of violence on the child's development. Early studies were recorded as clinical case histories (Kempe and Helfer, 1980; Martin, 1976). These represented only those children who were severely enough abused to warrant medical treatment. The effects of parental violence which was less extreme continued to be unexplored.

What case-history descriptions did provide was information which allows the formulation of hypotheses about what the effects of parental violence might be (Kempe and Helfer, 1980). These suggest that the

experience of violence affects children's development in a manner comparable to other situations where there has been a violation of parental trust. The developmental processes of self-differentiation and competency appear to be most affected.

Self Differentiation

The parent child relationship is unique in that it represents the only intimate relationship which has separation as its ultimate goal. Parents commit time, energy and economic resources to individuals who will eventually leave them. Parents who engage in physical aggression against their children have difficulty with this process of individuation. Their motivation for childbearing is often related to a desire for someone to love them. Their self-esteem is easily threatened by the child's efforts at autonomy. Part of this is due to a lack of understanding of child development which makes the child's efforts at competency difficult to endure (Martin, 1979, p. 418). The child's emerging autonomy is also threatening due to its symbolic acknowledgement that the child is separate from - not part - of the parent. Behaviorally, these fears act themselves out in the patterns of confused boundaries and parent-child role reversals common to abusive families (Kempe and Helfer, 1980, p. 42).

The effects of this enmeshment on the developing child lie in an inability to delineate out of the global experience of childhood a clear sense of who they are. This lack of self-differentiation can be expected to limit all areas of development (Russell, 1979, p. 29). Motorically it can inhibit the child's orientation of self in space. This effects not only coordination and movement but also children's sense of control over their physical environment. These children often develop symptoms of

timidity, fear of strange places and a pervasive fear of taking risks. Helfer describes this effect of growing up in an abusive family as growing up to be "out of control" (1980, p. 37).

Lack of self-differentiation limits the child's social-emotional development to an experience of life as seen through the eyes of their parents. These children can seldom tell you what they like or do not like to do. This "muting" of the senses has serious consequences for the child's development. Children learn through sensation and movement. If they are denied access to these or fear involvement with them, they grow up in a state of sensory and vestibular deprivation (Kempe and Helfer, 1980, p. 38). Such deprivation effects cognitive development by inhibiting the very processes by which children acquire cognitive representations. Work by Kagan stresses the simultaneous development of self-differentiation and the ability to think abstractly (Kagan, 1964, p. 74).

Failure at self-differentiation prevents the child from differentiating between feeling states and behavior. They are unable to objectify the self sufficiently to observe their feeling states and make decisions about how to act upon them. This fosters the development of reactionary behavior patterns and intensifies the child's sense of being out of control.

Perhaps most importantly, lack of self-differentiation prevents children from learning how to get their own needs met. If I can't identify who I am I certainly can't identify what I need or want. This inhibits the child's development of a critically important social skill. "One of the most important skills that a child must learn is how to get his or her needs met in an acceptable manner and when the most

appropriate time is to seek this fulfillment" (Kempe and Helfer, 1980, p. 39).

On Competency

The experience of parental abuse is frequently linked with impairments of the child's competency. Some authors describe the child's deficiencies in terms of social-emotional development (Schneider-Rosen and Cicchetti, 1984). The majority relate the experience to a variety of neurological soft sign deficits as well as impairments of language and intellectual functioning (Martin, 1979; Elmer, 1967; Green, 1981; Helfer, 1985; Money, 1982, Jaudes and Diamond, 1985). Current research in this area suggests that the parental violence interferes with the development of competency in one of three ways. Head trauma is considered a significant cause of retardation (Jaudes and Diamond, 1985, p. 343). Other types of impairment are thought to be either an inhibition of the development of self-esteem or through aberrations in children's cognitive style which hamper their ability to achieve.

The effects of violence on self-esteem are unclear. There is theoretical support for the position that children whose safety needs are not met or who experience excessively punitive parenting will have a negative self-image which inhibits growth (Maslow, 1968; Kagan, 1984). Research testing this assumption has produced inconsistent results. Some report that abused children have lower self-esteem than their peers while others claim no difference between the two groups (Oates, 1985).

Theories linking self-esteem and cognitive style to achievement appear frequently in the socialization literature. Rosenberg (1965), Coopersmith (1967) and Maccoby (1980) support the influence of self-esteem on learning as well as other areas of development. The work

of Lefcourt (1966), Nowicki and Strickland (1973), Crandall (1965), Rotter (1966) and Litshitz (1973, 1978) provide documentation of how children's perceptions of control affect their ability to learn. These authors conclude that unless children experience a contingency between initial efforts to produce and some modification or reward, they quickly lose interest in seeking new forms of mastery (Battle, Esther and Rotter, 1963, p. 489).

The work of Kagan (1984) as well as Feshback (1973) and Flavell (1977) suggest that different environmental experiences influence children's metacognitive structures. This results in variations of both social competency and academic success.

In the last several years, researchers have begun to examine the relationship between the experience of abuse and various attributes of the child's cognitive style. The research is scant, but what does exist supports a similar conclusion: "Abuse is considered detrimental in a wide range of developmental areas: physical, neurological, intellectual, behavioral and emotional" (Sandgrund, 1974, p. 428).

Impairments in cognitive style which influence children's problem solving ability appear to be affected by the experience of violence. Work by both Barahal (1981) and Slade et al. (1984) found that abused children exhibit a more externalized locus of control as well as a more egocentric perspective taking style (Barahal, 1981). Weaknesses in impulse control are also seen as characterizing the problem-solving style of abused children (Elmer, 1967; Kempe and Helfer, 1980). Whether this is due to vestibular immaturity or a psychological fear of failure is unclear. However, its effect is a performance marred by frequent error and an apparent lack of effort.

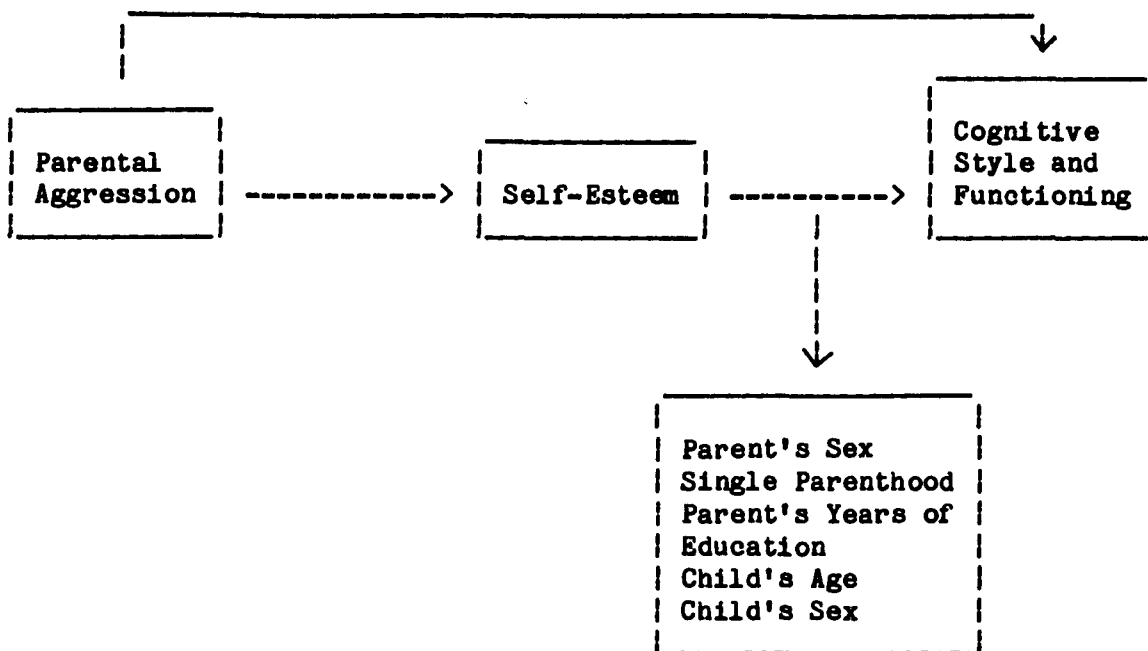


Figure 3-1. Theoretical Model of the Predicted Relationship Between Parental Aggression and Children's Cognitive Development

Studies of the effect of violence on achievement link it to deficiencies in both speech and language (Harmon, 1984; Elmer, 1967; Blager, 1979) and intellectual functioning (Barahal, 1981; Elmer, 1967).

It would appear that as research on the development of abused victims expands, quantitative support will be found for the clinical impression that these children "fail poorly on measures of cognition, language and learning" (Martin, 1979, p. 418).

Specification of the Model

Theories of cognitive development as well as qualitative descriptions of abused children suggest several models of the possible relationship between parental aggression and children's cognitive development. The repeated experience of parental aggression may directly affect children's cognitive development through an inhibition of achievement oriented behaviors. Alternatively, parental aggression may indirectly affect children's cognitive development through its affect on the child's self-esteem. In families where excessive physical force is used, the repeated gesture of hitting may restrict the child's development of a positive self-definition. This may limit the child's ability to perform successfully in the school environment. In either case, the repeated experience of parental aggression is predicted to be related to delays in children's cognitive style and cognitive functioning.

Chapter 4

METHODOLOGY

Hypotheses

Four hypotheses were investigated in the current study. They were:

1. The greater the amount of parental aggression experienced by children, the greater their developmental lag in the areas of memory, language and achievement.

2. The greater the amount of parental aggression experienced by children, the greater the impulsivity in the child's cognitive style.

3. The greater the amount of parental aggression experienced by children, the greater their tendency toward an external locus of control.

4. Children who are labeled as emotionally handicapped have a greater frequency of being abused than children in the non-identified comparison group.

Sample

The sample was drawn from the population of children attending the Portsmouth, N.H. elementary schools during the years 1983-1985. It consisted of fifty-two children.

The sample was stratified on the basis of whether or not the children were labeled emotionally handicapped. The decision to stratify the sample in this way was based on the fact that circumstances made it a perfect opportunity to gather information about this difficult to access group. Having developed the Portsmouth program which services these children, I was a "known commodity" to both the school personnel and the

parents of the identified children. The rapport which existed between myself and many of the parents encouraged their willingness to be interviewed. I felt this presented a unique opportunity to investigate whether the pattern of use of physical force by parents varied for this group of children from the pattern which occurred in families with no identified child.

Twenty-nine of the fifty-two children in the sample were labeled emotionally handicapped and had been assigned to the special education program "KIDS". The other twenty-three children were from regular classrooms. These children were matched to the special education group by sex and grade. The parents of the six children chosen as matched pairs for the remaining handicapped children refused to participate in the study. Matching was done to control for the overrepresentation of boys generally found in special education as opposed to the general elementary school population. The children were also matched by neighborhood to control for the overrepresentation of certain Portsmouth neighborhoods in special education as opposed to the general school population.

The primary parent of each child in the sample was interviewed.

There were sixty children enrolled in the "KIDS" program from 1983-1985. Of that number, eight were tuition students from various parts of Maine and New Hampshire. The remaining fifty-two children were Portsmouth residents. The non-Portsmouth residents were not included in the sample due to difficulties in obtaining a group of non-identified children from each of the represented towns. Initial letters were sent to the parents of the entire population of Portsmouth children enrolled in "KIDS". Letters were also sent to the parents of fifty-two elementary school children who were randomly selected from all those who met the

criteria for matching. A total of twenty-nine parents with children in the "KIDS" program agreed to participate. Of the remaining twenty-two parents with children in "KIDS", seven refused. The remaining fifteen made no response. The initial response was less promising for the fifty-two parents in the non-labeled group. Only fourteen agreed to participate. The number of refusals was twelve. The number of non-responses was twenty-six.

Refusals and non-responses from parents with children in the "KIDS" program presented some serious problems. It was not possible to substitute cases when someone refused to participate since the original fifty-two people represented the entire number of Portsmouth residents with children in the "KIDS" program. Those who failed to respond were, for the most part, parents who have histories of resisting any contact with the "KIDS" staff. It was considered detrimental to the child's progress in special education to pursue these potential cases. The concern was that parents would consider this a form of harassment by which they could justify the child's removal from the program.

For each refusal received from a parent in the comparison group, a letter was sent to the parent of a second child selected from the original eligibility list. This second sampling resulted in three additional participants. Second and third letters were sent to each person who failed to respond to the original letter. When this produced only two additional cases, building principals were asked to contact the remaining potential respondents from their respective school districts. It appeared that this resulted in nine additional cases. However, several of these people refused to be interviewed or did not show up for appointments. Only three additional cases were added to the sample

through the principal contacts. This brought the number of participating parents of non-identified children to twenty-three.

Independent and Dependent Variables

The primary independent variable of the study is parental use of physical force. The second independent variable is parental use of verbal aggression. Both variables were measured at three levels: low, middle and high.

A group of family structure variables was developed from the interview data. These were used to control for other parental characteristics which are associated with cognitive development. These included single parenthood; sex and educational level of parent.

The study also controlled for child characteristics of age and sex.

The dependent variables were measures of the child's (A) cognitive style, (B) cognitive functioning and (C) self-esteem. The elements of cognitive style which were measured were:

(1) Memory, operationalized as the child's score on the digit-span sub-test of the Wechsler Intelligence Test for Children-Revised (WISC-R) (Wechsler, 1974).

(2) Impulsivity-reflection, operationalized as the child's score on Kagan's Matching Familiar Figures Test (MFFT) (Kagan, 1965).

(3) Locus of control, operationalized as the child's score on the Strickland-Nowicki Locus of Control Life-Span Scale (1973).

Cognitive functioning was assessed by measures of achievement and receptive language development. Achievement was operationalized by the child's score on the (4) Peabody Individual Achievement Test (PIAT) (Dunn and Markwardt, 1970). Scores on the (5) Peabody Picture Vocabulary Test

(PPVT) (Dunn and Dunn, 1981) were used to operationalize receptive language development.

Self-esteem was considered an intervening variable which may be effected by parental use of physical force and which may in turn effect the child's cognitive development. Self-esteem was operationalized as the child's score on the (6) Piers Harris Self-Concept Scale (1976).

Parent Behavior Measures

Form N of the Conflict Tactics Scale (Straus, 1979) was used as the measure of use of both physical and verbal aggression by the parent. The Scale formed part of a larger interview schedule developed to learn more about how different parenting techniques might affect the child's cognitive development. In addition to the Conflict Tactics Scale, parents were asked to respond to sixty items ranging from demographic information about themselves and their families to goals they had for their children. They were asked to describe their favorite parenting techniques as well as their attitudes toward physical punishment.

The demographic information from the interview schedule was used to develop the measures controlling for child and parent characteristics other than verbal aggression and physical force which may be associated with the child's cognitive development. However, the primary analysis of this study used indexes developed from the Conflict Tactics Scale as measures of the independent variables.

The Scale consists of nineteen items designed to assess the typical problem solving techniques employed by the parent and child during the last year. Items range from those which rely on reasoning "how often did you discuss the issue", to those indicating use of either verbal aggression, minor violence or severe violence as a problem solving

technique. The Conflict Tactics Scale for parent to child reporting has the following reliability coefficients: reasoning, .69; verbal aggression, .77; and violence, .62. There is also evidence supporting the concurrent and construct validity of this instrument (Straus, 1979, p. 85).

Parents were asked to respond to the Conflict Tactics Scale by reading to themselves and placing it in an envelope which they then sealed. The envelopes were then coded and information from the Conflict Tactics Scale was analyzed separately from the rest of the interview schedule. This was done to protect the parent's anonymity in the event that they reported activity which might be considered criminal.

The fact that the Conflict Tactics Scale required the ability to read eliminated two parents who were illiterate. Six other parents did not complete the schedule either because they refused to or because they indicated a preference for not having to put anything in writing.

Cognitive Style Measures

The Wechsler Intelligence Scale for Children-Revised (WISC-R) defines intelligence as the "overall capacity of an individual to understand and cope with the world around him" (Wechsler, 1974, p. 17). The scale was standardized on a stratified sample of 2200 children between the ages of six years zero months and sixteen years eleven months. The stratification along the variables of age, sex, race, geographic region, occupation of head of household and urban-rural residence was arranged according to the 1970 United States Census (Wechsler, 1974, p. 17).

There are twelve subtests included in the scale ten of which are used to calculate intelligence quotients or "I.Q." scores. The scale

generates three of these: a verbal I.Q., a performance I.Q. and a full scale I.Q. A scaled score can be obtained for each of the subtests. The scaled scores of each sub-test have a mean of 10 and a standard deviation of 3. The digit span subtest used in this study is a supplementary test which is used in clinical situations when more diagnostic information is required. It consists of fourteen series of numbers presented at a rate of one per second. The subtest has two parts: digits forward and digits backward. No digits are repeated in a series. The sequence must be repeated without error in the correct sequence after a single presentation. Success on the first attempt of any trial is scored at two points. Success on the second attempt is scored as one point. The maximum raw score is 28. The average reliability of the digit span sub-test (for all ages) is .78. The average standard error of measurement is 1.44.

Impulsivity-reflection was measured by the child's score on Kagan's Matching Familiar Figures Test (MFFT) (Kagan, 1965). Impulsivity-reflection is considered as a composite of two dimensions: latency to first response and accuracy of response or total errors. The MFFT is regarded as "the primary and often the only used index of impulsivity-reflection" (Salkind, 1965). The child is presented with a picture of a familiar object and a set of highly similar objects which vary only slightly from the original. Only one is exactly the same as the standard. If the first response is correct, the child goes on to the next item. If the first response is incorrect, the child is directed to choose again to a maximum of five errors. The measures derived from the scale are mean time to the first response across all items and total errors across all items. Children whose scores fall below the sample median for latency are referred to as reflective, while those whose

scores fall above the sample median for latency and errors, are considered impulsive.

Locus on control was measured by the child's score on the Locus of Control Life-Span Scale (Strickland-Nowicki, 1973). It consists of forty questions requiring "yes" "no" responses. The questions describe reinforcement situations across motivational and interpersonal areas for example, "Do you believe that most problems will solve themselves if you just don't fool with them?" The scale takes approximately twenty minutes to administer. It is designed to be used with children of any age and can be administered in either a group or individual setting. It was given individually for the current study. The questions were read to the children since many of them had reading levels below the fifth grade level at which the test was written.

The score for the Locus of Control Scale is the total number of items answered in an externally controlled direction (Strickland-Nowicki, 1973, p. 2). The manual reports reliability coefficients of .63 for grades three through five and .68 for grade six. There are no coefficients reported for younger children. The Scale shows a moderate relationship with other measures of locus of control. High scores on both the Matching Familiar Figures Test and the Locus of Control Scale represent cognitive delays for these measures.

Cognitive Functioning Measures

Cognitive functioning was measured by the child's scores on the Peabody Individual achievement Test (PIAT) and the Peabody Picture Vocabulary Test (PPVT). The PIAT was developed by Lloyd Dunn and Fredrick Markwardt in 1970. It was intended for use with children from grades kindergarten through twelve. It consists of five sub-tests

measuring various aspects of academic achievement: mathematics, reading recognition, reading comprehension, spelling and general information. These produce five sub-scores which can be added together to calculate a total test score. The total score was used as a measure of cognitive functioning.

The PIAT was standardized on a population of American public school children from rural, urban and suburban areas. The sample was controlled for race, sex and parent occupation. According to Buros, "its construction and standardization are ... superior " (Buros, 1978, p. 76). The composite score and reading recognition sub-test have the highest reliability coefficients for the entire test: .64. The composite can also be converted into a standard stanine score which allows comparisons with other measures.

The Peabody Picture Vocabulary Test (PPVT) was the second measure of cognitive functioning. It was also written by Lloyd Dunn. The co-author is Leota Dunn. The 1981 edition was used in this study. The PPVT is intended for use with people from the ages of two years six months to forty years old. The test has a basal starting point (five consecutive success) and a ceiling (five out of seven mistakes). The subject is shown four pictures and asked to select the one which corresponds to the word the examiner has said.

The PPVT has a reliability coefficient of .81. It is considered to be highly correlated with other measures of vocabulary (Dunn and Dunn, 1981, p. 67).

Self-Esteem

The Piers Harris Self-Concept Scale was used as a measure of self-esteem. This is a self report instrument consisting of 80 first

person declarative statements to which the child is asked to respond "yes" or "no", e.g., "I am strong," "I have good ideas." The items were read to the children to control for differences in reading ability.

The Piers Harris was standardized on a sample of 1183 children in a Pennsylvania school district. Although the ages of the standardizing sample were between fourth and eighth grade, Buros states that if the items are read to the children it can be used with younger children (Buros, 1972, p. 306). The Scale has a teacher and peer validity coefficient of .40. The internal consistency ranges from .80-.93 and the retest reliability from .71-.77.

Data Collection

The interview data were collected over a period of ten months. Each parent who agreed to participate was contacted by phone to set up the time and place of the interview. Arrangements for testing the child were made at the parent interview. The average interview lasted approximately one hour. Forty-eight of the fifty-two parents allowed the interview to take place in their home. Three of the interviews were conducted in my office and one was conducted in the public library because the parent felt no one would hear him there.

Most of the parents interviewed were mothers. In six cases the father was interviewed as the primary parent. Two interviews took place with stepmothers who served as the child's primary care provider. In most of the interview situations, the parent fell quickly into a rather relaxed mood, sharing favorite stories about their child and providing much more information than was requested. There were, however, some interesting exceptions. In three interviews with parents of children in the "KIDS" program, the child was present for the entire interview. The

apparent enmeshment of parent and child was particularly obvious with one mother and son. Although all the questions were directed to the mother, the son frequently responded for her, often telling her "she had it all wrong" and saying to me "what really happened was."

In several other interviews, a variety of extra people: friends, extended family members, grandparents, were present for the entire time, offering comments and as one woman put it "giving moral support". Perhaps the most unusual interview involved the mother and step-father of a nine year old girl who had been admitted to the "KIDS" program in September, 1984. The presenting problems included a history of alleged sexual abuse by the natural father as well as characteristics of poor adjustment to childhood (DSM-III). The interview was scheduled on two occasions prior to the actual session. The reason given was that the step-father wanted to be present. When it finally occurred, the interview lasted two hours. Contrary to the affective tone of the other interviews, this exchange was characterized by considerable tension. The step-father frequently reprimanded the children for seemingly minor transgressions. He also corrected his wife several times. At one point, she lowered her head and appeared to be crying. The step-father then began expressing anxiety about her "telling these things to a stranger". The girl returned to school for only two days after the interview. Within two weeks, the step-father had "borrowed" the natural father's truck and moved the entire family to Florida. The natural father had to go to Florida to retrieve his truck. He is currently involved in legal battles to have his children returned to the state.

What struck me during the entire interview process was the ease with which parents described events which were actually quite abhorrent to me. For example, one parent laughingly related to me how her husband had

thrown their son (who could not swim) into water over his head to "teach him a lesson". Another told me of putting pepper on her child's tongue and withholding water as a way of teaching her not to swear. This same parent told me she didn't beat her child very much: only once or twice a year. What was disconcerting about this was that these people were trying very hard to please me. They did not perceive that what they were saying was in anyway offensive to me.

Measurement of the child's cognitive style and functioning required approximately two hours per child. Each of the instruments was administered individually to the child by myself or one other person hired to assist me in this part of the data collection. Most of the testing was done in a school setting either during the summer or in after school hours. The session was split. Each child was given a break after the first hour or the tests were administered on two separate occasions. For some of the children in the "KIDS" program, the testing had to be done in more than two sessions since their handicapping condition made longer sessions impractical. The atmosphere during the testing was generally quite pleasant. All the children seemed quite eager to please. Once it became clear to them that the tests were more to help me than to evaluate them, they were quite expansive in showing me all they knew.

Data Analysis

First, bivariate analyses (crosstabs and anova) were computed to determine if verbal aggression and physical aggression are related to measures of cognitive development. A priori t tests were computed to ascertain the differences between the low, middle and high violence groups for each measure of cognitive style and cognitive

functioning. Bivariate analyses were also computed to establish differences between the handicapped and comparison groups on cognitive indicators as well as in the parental use of verbal aggression and violence. The purpose of doing these analyses was to determine if the expected differences in cognitive profile between the groups existed as well as to determine if the incidence of aggression against children was higher in the handicapped group.

Second, multiple regression equations were computed for each of the dependent variables. In addition to measures of parental aggression and violence, the following measures of family context were entered into the equation as predictor variables: single parenthood, sex of responding parent, years of education of respondent, age and sex of child. The purpose of computing these regression equations was to ascertain the proportion of each dependent variable that was explained by each predictor variable and by the combined set of predictor variables.

Third, multiple regression equations were computed to determine the intervening effect of self-esteem on cognitive development. Self-esteem was entered into the regression equation first as an independent variable with the predictor variables of parental verbal aggression and violence, single parenthood, sex of responding parent, years of education of the respondent, age and sex of child. Equations were computed for each of the dependent variables to assess the direct effects of self-esteem on cognitive style and cognitive functioning. A multiple regression equation was also computed using self-esteem as a dependent variable and parental verbal aggression and violence, single parenthood, sex of responding parent, years of education of the respondent, age and sex of child as predictor variables. This was done to determine any indirect effects self-esteem might have on the other dependent variables.

Chapter 5

DIFFERENCES BETWEEN HANDICAPPED AND COMPARISON GROUPS

SOCIAL AND FAMILY CHARACTERISTICS

The main purpose of the study was to evaluate the effect of physical force on cognitive development. With this purpose in mind, the handicapped and non-handicapped groups were matched to control for sources of variation in cognitive profile other than the use of physical force. A bivariate analysis of several demographic variables was done to determine the similarity of the groups.

Table 5-1 indicates that children in both groups showed little variation on the characteristics of age, sex and school attendance. The majority of cases in each group were male children whose average age was between 10.8 and 11.0 years old. On the average they had attended school for 6.7 years.

Analysis of several parent characteristics revealed that there were several differences between the groups which could be possible threats to validity. The majority of parent respondents from both groups were from two partner families. However, Table 5-1 indicates that the handicapped group had a higher percentage of single parents. Although the majority of respondents from both groups were female, the handicapped group had a surprisingly high percentage of male respondents. Differential reporting of violence by males and females could therefore affect results. However, research by Straus, Gelles and Steinmetz suggests variation in response patterns between the genders may not be as great as expected. They conclude that "one gets roughly the same over-all rates of violence

Table 5-1. Sample Characteristics

Characteristics	Handicapped (N=29)	Comparison (N=23)
A. Child Characteristics		
Percent Males	79.3	78.2
Average Age	10.8	11.0
Average Years in School	6.7	6.6
B. Parent Characteristics		
Percent Males	31.0	2.0
Percent Single Parents	37.9	21.7
Percent of Non-Manual Labor	47.0	73.0
Percent Two Income Families	26.0	53.0
Average Years of School Attendance	12.14	13.13

from interviews with men that one gets from interviewing women" (Straus, Gelles and Steinmetz, 1981:265).

The groups also varied on several measures of socio-economic status. The mean number of years of school attendance by parents was lower for the handicapped group. The educational level of respondents partners was also lower for the handicapped group. The occupational variables of manual versus non-manual labor, and whether more than one partner worked, revealed a similar differential pattern between the two groups. Parents from the handicapped group were more frequently employed in jobs involving manual labor than parents from the comparison group.

There was a higher percentage of respondents in the non-handicapped group who lived in two income homes than in the handicapped group. Certainly some of this variation is due to the higher representation of single parents among the handicapped group respondents. However, taken with the lower educational level and higher percentage of manual laborers, this suggests that the handicapped group respondents represent a group whose socio-economic status is less than that of the comparison group.

COGNITIVE CHARACTERISTICS

One would expect that children identified for special education services would have cognitive profiles which were quite different from their non-handicapped peers. To determine if this was true for the children represented in the Portsmouth sample, a bivariate analysis was done on each of the cognitive indicators by group. Although the significance levels vary for each dependent variable, in all cases, the differences between the handicapped and non-handicapped children are in the expected direction. As indicated in Table 5-2, scores on the

Table 5-2. Group Differences on Measures of Cognitive Development

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Cognitive Development Measure	Comparison	Handicapped	F

A. Peabody Individual Achievement Test Standard Score (N=12, N=19)	242.83	94.57	8.65**
B. Peabody Picture Vocabulary Test Standard Score (N=17, N=21)	96.82	93.23	.79
C. Nowicki-Strickland Life Span Locus of Control Test (N=20, N=23)	15.95	17.00	.58
D. Matching Familiar Figures Test (N=15, N=17)	.27	.65	5.07
E. Piers Harris Self-Concept Scale (N=20, N=21)	59.85	50.47	11.35**
F. WISC-R Digit Span (N=12, N=18)	10.41	8.05	5.40*

* = $p < .05$, ** = $p < .01$

measures of achievement, the Peabody Individual Achievement Test (PIAT) and the Peabody Picture Vocabulary Test (PPVT), show the handicapped average scores for each test lower than the comparison group average score. For the PIAT (standard scores) this difference is significant at the .006 level.

Average scores on measures of cognitive style (the Strickland-Nowicki Locus of Control Life Span Scale and the Matching Familiar Figures Test (MFFT) indicate that the handicapped children have a more externalized locus of control. MFFT scores indicate a higher tendency toward impulsivity in this group. Differences between the groups on memory scores indicate that the handicapped group has more difficulty retaining a series of commands. This may imply that the group has a harder time retaining sequences of information which are directed toward them.

Scores on the Piers Harris Measure of Self-Esteem indicate that the handicapped group on the average feel less good about themselves than do their non-handicapped peers. The difference between the groups was significant at the .001 level.

Although with the exception of the PIAT, WISC-R Digit Span and the Piers Harris the differences between the two groups were not significant at the .05 level, the data do show that the expected cognitive differences between the two groups exist. The lack of significance can perhaps best be explained by the very small number of cases

PARENTAL USE OF REASONING, VERBAL AGGRESSION AND VIOLENCE

Group differences on parental use of reasoning, verbal aggression and violence were determined by a bivariate analysis of indexes developed from the Conflict Tactics Scale. For each of the tactics, parents were

Table 5-3. Percent of Parents Using Each Technique

Parenting Technique	Comparison (N=20)			Handicapped (N=24)			Chi Square Value	F
	Low	Middle	High	Low	Middle	High		
Verbal Reasoning	40	45	15	16	54	29	3.32	.19
Verbal Aggression	45	45	5	29	42	33	5.02	.08
Physical Aggression	30	55	15	8	58	33	4.30	.11

categorized as "low, medium and high" on the basis of their reported frequency of use.

Table 5-3 indicates some interesting differences between the groups on the use of verbal reasoning. Eighty-three percent of the respondents from the handicapped group reported using reasoning techniques frequently enough to place them in the middle or high group. Only sixty-three percent of the comparison group reported using reasoning that often. This difference becomes puzzling when average group scores on use of verbal aggression are compared. Handicapped group respondents reported an appreciably greater use of verbal aggression with their children than did parents from the comparison group.

It seems unlikely that reasoning and verbal aggression are used at the same time by parents. It is also possible that the parents of the non-identified children have developed ways of dealing with them which are reflected in neither the reasoning nor verbal aggression tactics. However, the interviews suggest another explanation for the data. The group differences can probably be explained in two ways. First, parents in the handicapped group have children who by definition are harder to handle than their non-identified peers. The parents frequently reported a sequence of efforts to try to resolve differences between themselves and their children. Often the first one mentioned could be considered reasoning and allow the parent to report having used that tactic. However, these same parents frequently reported resorting to other techniques when the first efforts at reasoning failed. This did not seem to be the case as often with parents from the comparison group. In fact, many of them reported relationships with their children that were so cooperative that they seldom had to resort to formal problem-solving techniques.

A second explanation of the high use of reasoning by the parents in the handicapped group is the inclusion of the item "brought in or tried to bring in someone to help settle things" in that measure. The "KIDS" program is based on a family systems model. Parents of the children enrolled in the program are required to participate in some form of family therapy. They are actually encouraged to bring issues between themselves and their children to the attention of the family therapist. Having this in mind may have led them to respond more frequently to the "bringing someone in" item than parents in the comparison group.

The suspicion that parents in the handicapped group move through a variety of techniques in trying to discipline their children is supported by the between group differences on use of violence. As indicated in Table 5-3, parents with handicapped children reported using techniques such as "pushing, grabbing or shoving" (low violence) less frequently than parents with non-identified children. They reported using techniques such as "kicking or hitting with a fist" (high violence) more often than parents from the comparison group.

Referring back to the interviews to understand these differences, respondents from the handicapped group typically reported using physical force when they had more or less "reached the end of their rope." Comparison group respondents reported the use of physical force more as a reflection of an established family rule.

QUALITATIVE DIFFERENCES

Interviews of the parents of the handicapped and non-identified children suggest that the groups vary not only in the actual use of aggression and violence but also on other behavioral indicators associated with perpetrators of child abuse. There was a distinct

difference between the groups on attributing motives to children's misbehavior. Comparison group parents acknowledged the frustration of trying to get children to do things like clean their rooms, pick up after themselves, come home on time. They seemed however to accept that raising children implied some tedious moments.

Parents from the handicapped group defined similar behaviors by their children quite differently. The belief that the child willfully did things to defy or aggravate the parent was common. Its perhaps most dramatic expression comes from the step-mother of an eleven year old girl who has since been hospitalized for anorexia nervosa: "her 'I don't care' attitude really bothers me. She keeps vomiting at the table. The doctor asked her if she'd promise to stop ... she just said 'no'."

The groups also varied in the articulation of family rules. The comparison group interviews indicated a rather clear cut demarcation of adult and child roles. There was considerable parenting style variation within the group. However, despite stylistic differences, these parents appeared accepting of their responsibility for establishing limits or rules in the family. They sometimes expressed frustration at their inability to enforce the limits they set, but at no time did any of them appear to believe that limit setting was not their responsibility.

This was not always true for the parents of the children who were handicapped. As a group, these parents seemed to vacillate more between a rather joking encouragement of their child's misbehavior and authoritarian efforts to control it. The issue did not seem to be whether a behavior was detrimental to the child's sense of competency or social well-being. Rather, it seemed that behaviors become unacceptable when parents had "had enough."

The ambiguity around definitions of right and wrong was particularly clear in an interview with a young mother of three male children. Although still under ten years old, two of the three boys had already been identified as emotionally handicapped. Their presenting symptom was "undersocialized aggression" (DSM-III).

This mother laughingly reported a "game" she and the children frequently played. It would start out with her wrestling one of the children to the floor. She would "choke" the child until he started to resist. If the resistance "got out of hand," that is, if the child struck out at her or tried to fight back, she would "smack him and send him to bed."

Parents in the comparison group defined their relationship with their children as essentially one-sided. While they welcomed expressions of love and respect from their children, they did not appear to rely on their emotional support in quite the way parents of the handicapped children did. Rather, they referred to their partner, friends or family as people who supported their own development during the process of child-rearing.

They spoke with pride of different skills their children had acquired. The goals they had for them were future oriented and very often included some hope that they would be happy adults.

Parents from the handicapped group viewed the parent child relationship differently. They frequently blurred the boundary between parent and child roles. They described how they relied on the child for support and companionship, "we give each other feedback...." They mentioned the child's ability to take care of them and "know what I need." Their goals in child rearing centered more on what they could get out of the relationship than any expectation for the child. For example,

in response to the question "what are your goals in child rearing," parents reported things as "surviving", "just getting through it."

When asked what the child did well, parents from the handicapped group frequently cited relational attributes. Some, rather than specifying competency at a skill, actually responded by saying "because she's mine" or "I love him because he belongs to me."

It is impossible to say whether the variations between groups in family context as well as parental aggression cause the emotional disturbance of the handicapped group. However, it is plausible to assume that these variables function to maintain that disturbance at a level which interferes with age appropriate cognitive development.

Chapter 6

AGGRESSION AND COGNITIVE DEVELOPMENT

VERBAL AGGRESSION

Parental verbal aggression was used as an independent variable to investigate its effects on the various cognitive indicators used throughout the study. The hypothesis predicted that parental use of verbal aggression was associated with delays in cognitive development. As indicated in Table 6-1a, Sections A, E and F, t-test values show no significant differences between the three groups on measures of achievement, self-esteem or impulsivity.

However, a comparison of scores between the low, middle and high violence groups does reveal an interesting pattern of results on measures of language development (B), memory (C) and locus of control (D).

For memory scores the impact of parental verbal aggression seems to be greatest at the highest level of frequency. This would suggest that children can tolerate a certain amount of parental verbal aggression before exhibiting cognitive delays in this area. However, this is not the case for language development or locus of control scores. Although the contrast is not significant, parental verbal aggression seems to have a greater influence on children's locus of control scores between the low and middle groups than between the low and high groups. Language scores are significantly affected in the middle verbal aggression group. A comparison of Peabody Picture Vocabulary Test scores (Table 6-1a, Section B) for the low and middle violence groups indicates

Table 6-1a. Relation of Parental Verbal Aggression to Child's Cognitive Development

Cognitive Development Measure	Verbal Aggression			F
	Low	Middle	High	
A. Peabody Individual Achievement Test Standard Score (N=9, N=11, N=5)	186.67	140.46	91.40	.7018
B. Peabody Picture Vocabulary Test Standard Score (N=12, N=13, N=8)	102.50	91.38	90.37	3.8957*
C. WISC-R Digit Span (N=11, N=9, N=6)	8.73	9.89	7.67	1.1381
D. Nowicki-Strickland Life Span Locus of Control Test (N=15, N=14, N=7)	16.47	13.93	19.29	4.3229*
E. Piers Harris Self-Concept Scale (N=14, N=15, N=7)	56.28	53.40	53.00	1.7772
F. Matching Familiar Figures Test (N=10, N=10, N=6)	.40	.50	.33	.2081

* = $p < .05$, ** = $p < .01$

Table 6-1b. t Test Values for Relation of Parental Verbal Aggression to Child's Cognitive Development

Contrast Between Verbal Aggression Group (Low, Middle, High)	Difference Between Means	Standard Error of Difference	T Value	D.F.	T Probability
A. Peabody Individual Achievement Test Standard Scores (N=25)					
Low-High Groups	95.26	81.66	1.16	22	0.256
Low-Middle Groups	46.21	65.80	0.70	22	0.490
B. Peabody Picture Vocabulary Test Standard Scores (N=32)					
Low-High Groups	12.12	5.20	2.34	30	0.027
Low-Middle Groups	11.11	4.56	2.43	30	0.021
C. WISC-R Digit Span (N=26)					
Low-High Groups	1.06	1.43	0.73	23	0.0468
Low-Middle Groups	-1.16	1.27	-0.91	23	0.371
D. Nowicki-Strickland Lifespan Locus of Control Test (N=36)					
Low-High Groups	-2.81	1.83	-1.53	33	0.134
Low-Middle Groups	2.54	1.48	1.70	33	0.098
E. Piers-Harris Self-Concept Scale (N=36)					
Low-High Groups	3.28	4.50	0.72	33	0.471
Low-Middle Groups	2.88	3.61	0.79	33	0.431
F. Matching Familiar Figures Test (N=26)					
Low-High Groups	0.06	0.26	0.24	23	0.806
Low-Middle Groups	-0.10	0.23	-0.43	23	0.672

that the contrast between these groups is as great as the contrast observed between the low and high violence groups.

These results indicate that middle range use of verbal aggression has consequences for the child which remain fairly constant across increased use of verbal aggression by the parent. This is consistent with research linking parental acceptance of the child with academic success (Hilliard and Roth, 1969; Coleman, 1966). Its importance lies in showing that the detrimental effect of parental verbal aggression occurs when it is used with only moderate frequency.

Why verbal aggression influences language at the middle range and then levels off is due probably to the fact that beyond a certain point, verbal aggression is paired with physical force. The combined effect of both verbal aggression and physical force are then responsible for the cognitive impairment. There does however seem to be something unique about the relationship between verbal aggression and language development.

This may be due to a combination of factors. Parental use of verbal aggression decreases as parent educational level increases. The effects of differential socioeconomic status are well documented in the research on language development (Schiamberg, 1985, p. 302). Lower socioeconomic status is frequently associated with delays in both expressive and receptive language. It is possible that the observed relationship between parental use of verbal aggression and language development is influenced by differences in socioeconomic status between the groups.

An alternative explanation of the relationship comes from research on the process of language acquisition. Language is the symbolic representation of experience. Its acquisition allows reflection on what one has produced and experienced as well as on how one is perceived.

Children typically learn language within the supportive context of the family. Children whose parents spend a lot of time talking to them develop a more extensive vocabulary at a younger age than children whose parents are less communicative. Developmental psychologists cite family interaction style as a potentially significant feature in the development of both expressive and receptive language (Dale, 1976).

Acquisition of both expressive and receptive language is a clear indicator of growing competency in the child. Developing a vocabulary with which to express oneself represents a developmental task which requires shaping and reinforcement behaviors from the parent. Verbally aggressive parents may be impatient with the labeling of objects and constant communication required for language competency (Martin, 1979).

The threat of being reprimanded or made fun of inhibits the child's desire to learn new things. This can cause receptive language delays by inhibiting child questions such as "What's that", "What's its name": questions by which children acquire vocabulary. Other research on physical abuse in children has suggested that delays in speech might be the child's "inhibitory response to parental admonitions against spontaneous speech" (Green, 1981, p. 133). While this analysis does not measure expressive language the results do indicate that parental use of verbal aggression delays the child's acquisition of receptive language. It is possible that this delay may result in or be associated with patterns of expressive language delay in children who experience parental verbal aggression.

VIOLENCE

Table 6-2a indicates that there is no apparent relationship between parental use of violence and scores on the measures of language

Table 6-2a. Relation of Parental Violence to Child's Cognitive Development

Cognitive Development Measure	Physical Violence			F
	Low	Middle	High	
A. Peabody Individual Achievement Test Standard Score (N=2, N=7, N=5)	287.00	162.57	90.80	1.1660
B. Peabody Picture Vocabulary Test Standard Score (N=3, N=6, N=6)	92.33	102.33	89.83	1.2620
C. WISC-R Digit Span (N=4, N=7, N=5)	9.20	10.00	7.20	.2902
D. Nowicki-Strickland Life Span Locus of Control Test (N=5, N=9, N=5)	11.80	16.00	19.20	8.5237**
E. Piers Harris Self-Concept Scale (N=5, N=9, N=5)	58.80	53.30	58.00	1.0588
F. Matching Familiar Figures Test (N=4, N=15, N=7)	250.00	467.00	429.00	.2756

* = $p < .05$, ** = $p < .01$

Table 6-2b. t Test Values for Relation of Parental Violence to Child's Cognitive Development

Contrast Between Verbal Aggression Group (Low, Middle, High)	Difference Between Means	Standard Error of Difference	T Value	D.F.	T Probability
A. Peabody Individual Achievement Test Standard Scores (N=25)					
Low-High Groups	166.85	80.33	2.07	22	0.050
Low-Middle Groups	129.00	72.19	1.78	22	0.080
B. Peabody Picture Vocabulary Test Standard Scores (N=32)					
Low-High Groups	0.10	6.43	0.01	30	0.988
Low-Middle Groups	-6.82	5.92	-1.15	30	0.258
C. WISC-R Digit Span (N=26)					
Low-High Groups	2.80	1.44	1.94	24	0.064
Low-Middle Groups	0.08	1.31	0.06	24	0.949
D. Nowicki-Strickland Lifespan Locus of Control Test (N=36)					
Low-High Groups	-7.15	2.02	-3.54	33	0.001
Low-Middle Groups	-4.81	1.76	-2.73	33	0.010
E. Piers-Harris Self-Concept Scale (N=36)					
Low-High Groups	-2.38	4.65	-0.57	32	0.611
Low-Middle Groups	-1.11	4.06	-0.27	32	0.786
F. Matching Familiar Figures Test (N=26)					
Low-High Groups	-0.17	0.32	-0.54	23	0.588
Low-Middle Groups	-0.21	0.29	-0.74	23	0.466

development, self-esteem and impulsivity used in this study. Parental use of violence appears to be most strongly related to the cognitive style indicators of memory and externalized locus of control and the cognitive functioning indicator of achievement.

Memory

The greatest impact of parental violence on children's memory scores seems to occur at the highest level of physical force. As indicated on Table 6-2b, contrasts between both the low and high violence groups indicate that the influence of parental violence on memory is most clearly observed at the high group level of frequency and severity.

Locus of Control

The greatest difference between the groups on measures of cognitive style is across the locus of control scores. Children's average scores on the measure of externalized locus of control increase steadily as the severity and frequency of parental violence increases (Table 6-2a, Row D). The greatest contrast is observed between the low and high violence groups. However, as indicated in Table 6-2b, Section D, the experience of violence at even the middle group level affects children's scores on this measure.

Achievement

Scores on the Peabody Individual Achievement Test (PIAT) indicate that the relationship of parental violence to children's academic achievement gets stronger with increases in the severity and frequency of the parental force. Contrasting the scores for the low, middle and high violence groups indicates that increases in use of parental violence

between the low and high groups have a greater influence on children's achievement than increases between the low and middle groups.

The observed relationships between parental use of physical force and cognitive characteristics of memory, locus of control and achievement are understandable when one considers various qualitative descriptions of abused children which appear in the literature on that group.

Factors associated with development of memory are the cognitive processes of attachment and object constancy. Piaget describes these in terms of the consistency of the child's early development. Research on abusive families characterizes them as having inconsistent rules and boundaries (Burgess, 1978, p. 1164).

Children who have been abused are characterized as hypervigilant with a tendency to be aware of everything going on around them. They are observed to be distractible with short attention spans (Soeffing, 1975, p. 127).

When administering the WISC-R, my impression of many of the children was that I really couldn't assess how well they retained information. Rather, the test scores were confounded by their inability to focus on the task at hand. This occurred more often with children whose parent interview reflected frequent or severe use of physical force. Perhaps what the scores on the WISC-R indicate is less a proof that abused children's memories are impaired than an indication that their ability to concentrate interfered with their performance. If this is the case, the depressed WISC-R scores for children with parents in the high violence group lends quantitative support to the description of abused children as distractible.

The fact that high violence families produce children with an externalized locus of control is understandable for quite similar

reasons. They are also consistent with Slade's research which found that abused children have higher external locus of control scores for failure at academic tasks (Slade et al., 1984, p. 45). Children learn how to feel responsible for their behavior when they experience the connection between what they do and how people respond to them or what happens to them. According to Crandell, children first accept control for their successes and then as they get older, learn to accept responsibility for their failures (Crandell, 1965). The ability to do this is related to at least two environmental characteristics. First, children need to feel that they impact on the environment. They learn this through the production of things which they are praised or given credit for. This is what Erikson is talking about when he discusses the task of the school-aged child as one of industry versus inferiority (Erikson, 1963).

They also learn the impact of their behavior in environments which have consistent rules and consequences for infractions. Violence prone families lack this consistency. Children growing up in these homes experience the rewards or punishments which come their way less as an effect of their own behavior than as the whim or mood of the adult - an external agent of control. This is the only reasonable explanation available to the child since a behavior which warrants praise at one moment may be a cause for punishment the next time it occurs.

The second environmental characteristic which influences the development of children's locus of control is the experience that they have had at role-taking. Children typically engage in role-taking in play as a way of learning empathy. Following rules of games, as well as certain types of representational play, teach children how to take the position of the other person in a situation. Children growing up in violent homes may not develop age appropriate role-taking skills, since

they are often denied age-appropriate play opportunities (Harmon, 1984, p. 163; Ackley, 1977). Restriction from age appropriate play results from inappropriate parental expectations. For example, blurred boundaries between a parent and child could require excessive caretaking behavior on the part of the child from a very young age.

The relationship between parental use of physical force and children's achievement appears to be mediated by the effect the physical force has on cognitive style. Children whose cognitive style fits the teaching style of the public schools do better on measures of achievement. This is true at least in part because of their ability to focus on content in communication. Better school achievement is also associated with the ability to take responsibility for success and failure and a problem-solving style characterized by thoughtfulness and low error (Kagan, 1984, p. 727; Thompson, 1983, p. 157).

Children who experience middle and high levels of parental violence focus more on the relational aspects of communication (Minuchin, 1967). The results of this analysis support the position that they lack the level of internalization necessary for taking responsibility for their performance. It is therefore understandable that their achievement scores are also depressed.

Educational Program Implications

Taken together, these findings suggest that children who experience high levels of violence might be helped by a learning environment which compensates for these variations in cognitive style. What is particularly important in terms of educational programming for these children is an understanding of the impact of the high externalized locus of control scores. External locus of control is an attribution of

responsibility for success and/or failure to an external agent. It is comparable to learned helplessness (Seligman, 1975). Life is experienced as a series of things happening to the individual rather than as a process of the individual acting on the environment. Before these children can be expected to function in an educational environment which assumes individual responsibility for learning, they must be taught that what they do in fact affects what happens to them. Otherwise, traditional instructional and behavior management techniques which presume the ability to infer cause and effect may have little or no meaning for them.

Earlier studies of the relationship between abuse and cognitive development (Ackley, 1977; Collins, 1974; Elmer, 1967) used samples of children previously identified as abused. The sample used in this study lacked this identifying label. However, the relationship between abuse and cognitive development is the same as that observed in the earlier research: handicapped children are abused more frequently than their non-handicapped peers. The current study provides quantitative evidence that this relationship exists for children identified as emotionally handicapped as well as for other types of handicapping conditions which occur more frequently in the literature.

Chapter 7

MULTIVARIATE ANALYSIS OF COGNITIVE DEVELOPMENT

The multivariate analysis consisted of a series of multiple regressions. A regression equation was computed for each of the cognitive indicators. In addition to levels of parental aggression and use of physical force, measures of several family context variables were included in the set of predictor variables. These included single parenthood, sex of respondent, respondent's years of education, child's sex and child's age. The family context variables were selected on the basis of their expected relationship to children's cognitive development. They were entered into the regression equation as control variables.

The purpose of doing the multiple regression analysis was to determine the extent to which the set of predictor variables explained the variation in each of the dependent variables as well as the effect of each taken separately. Of special interest was the determination of the role self-esteem plays in the relationship between parental aggression and cognitive development. A measure of self-esteem was included as a predictor in one set of regression equations (Table 7-4) to test the extent to which it accounted for variation in each of the measures of cognitive development. Self-esteem was also used as a dependent variable (Table 7-3) to assess the intervening effect it might have on measures of cognitive development.

Pairwise and listwise equations were computed. Both analyses

Table 7-1. Mean, Standard Deviations of Regression Equation Variables

Variable	Mean	Standard Deviation	Number of Cases
Peabody Individual Achievement Tests Standard Score	151.97	153.12	31
Peabody Picture Vocabulary Test Standard Scores	94.84	12.65	38
WISC-R Digit Span	9.00	2.92	30
Nowicki-Strickland Lifespan External Locus of Control	16.51	4.47	43
Matching Familiar Figures Test	0.47	0.51	32
Piers Harris Self-Concept Test	55.05	9.99	41
Parental Use of Physical Force	2.07	0.66	44
Parental Verbal Aggression	1.84	0.75	44
Single Parent	0.71	0.46	52
Sex of Responding Parent	1.21	0.41	52
Parent's Years of Education	12.58	2.99	52
Sex of Child	1.81	0.40	52
Age of Child	10.94	1.70	52

Table 7-2. Correlation Matrix of Regression Equation Variables

Regression Variable	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Peabody Individual Achievement Test Standard Score	1.00												
2. Peabody Picture Vocabulary Test Standard Score	.40*	1.00											
3. WISC-III Digit Span	.67***	.30	1.00										
4. Bickel-Strickland Lifespan External Locus of Control	-.33*	-.06	.33*	1.00									
5. Matching Familiar Figures Test	-.35	-.16	-.34	.12	1.00								
6. Piers-Harris Self-Concept Test	-.16	-.04	.06	-.01	-.11	1.00							
7. Parental Use of Physical Force	-.39*	-.05	-.40*	.51***	.09	.09	1.00						
8. Parental Verbal Aggression	-.24	-.41**	-.10	.14	-.03	-.14	.53***	1.00					
9. Single Parent	.19	.02	.15	-.12	.09	.03	-.15	-.20	1.00				
10. Sex of Responding Parent	-.19	-.04	.10	-.01	.11	.13	-.14	-.04	.02	1.00			
11. Parent's Years of Education	.43**	.16	.42*	-.42**	.03	.11	-.34*	-.14	-.05	.33**	1.00		
12. Sex of Child	-.16	-.08	-.23	-.30*	.17	.20	-.03	-.18	.01	.01	.18	1.00	
13. Age of Child	.22	.03	-.10	-.31*	-.08	-.16	-.14	.07	-.15	-.18	-.01	.16	1.00

*p<.05, **p<.01, ***p<.001

Table 7-3. Multiple Regression Analysis of Cognitive Development

Independent Variable	Regression Coefficient	Beta	t	p
A. Peabody Individual Achievement Test				
Standard Score (N=25)				
R=.72713 R ² =.52872, Adj. R ² =.33466 F=2.72457 p=.043				
Parental Use of Physical Force	- 25.15154	-.10860	- .499	.624
Parental Verbal Aggression	- 32.35858	-.15750	- .761	.457
Single Parent	72.57158	.21681	1.250	.228
Sex of Responding Parent	-130.37152	-.35111	-1.951	.068
Parent's Years of Education	28.28415	.55275	2.896	.010
Sex of Child	-124.93192	-.32469	-1.834	.084
Age of Child	21.81902	.24177	1.338	.199
B. Peabody Picture Vocabulary Test				
Standard Score (N=33)				
R=.55451 R ² =.30748, Adj. R ² =.11357 F=1.58572 p=.186				
Parental Use of Physical Force	7.11759	.37199	1.710	.100
Parental Verbal Aggression	- 10.63716	-.62671	-3.028	.006
Single Parent	- .13588	-.00491	- .028	.978
Sex of Responding Parent	- 2.36547	-.07711	- .429	.672
Parent's Years of Education	1.15640	.27355	1.434	.164
Sex of Child	- 8.00114	-.25170	-1.422	.167
Age of Child	1.13026	.15160	.839	.409
C. WISC-R Digit Span (N=26)				
R=.61540 R ² =.37871, Adj. R ² =.13710 F=1.56746 p=.208				
Parental Use of Physical Force	- 1.49235	-.33739	-1.389	.182
Parental Verbal Aggression	.46150	.11762	.509	.617
Single Parent	.85053	.13305	.687	.501
Sex of Responding Parent	- .63688	.08981	- .447	.660
Parent's Years of Education	.39633	.40556	1.904	.073
Sex of Child	- 2.04038	-.27767	-1.405	.177
Age of Child	- .17939	-.10408	- .516	.612
D. Nowicki-Strickland Lifespan				
External Locus of Control Test (N=36)				
R=.69579 R ² =.48412, Adj. R ² =.35515 F=3.75379 p=.005				
Parental Use of Physical Force	3.29283	.48658	2.742	.011
Parental Verbal Aggression	- 1.24436	-.20729	-1.228	.230
Single Parent	- 1.22290	-.12504	- .884	.384
Sex of Responding Parent	1.17719	.10850	.740	.466
Parent's Years of Education	- .42544	-.28455	-1.829	.078
Sex of Child	- 2.65207	-.23589	-1.634	.113
Age of Child	- .52145	-.19775	-1.342	.190

Table 7-3. Multiple Regression Analysis of Cognitive Development (Continued)

Independent Variable	Regression Coefficient	Beta	t	p

E. Matching Familiar Figures Test (N=26)				
R=.26180 R ² =.06854, Adj. R ² =-.29369 F=.18922 p=.984				
Parental Use of Physical Force	.11455	.14938	.502	.622
Parental Verbal Aggression	- .03408	-.05010	- .177	.861
Single Parent	.10535	.09505	.401	.693
Sex of Responding Parent	.13485	.10968	.446	.661
Parent's Years of Education	.00263	.01554	.060	.953
Sex of Child	.21386	.16786	.694	.497
Age of Child	- .01459	-.04883	-.198	.845
F. Piers Harris Self-Concept Test (N=35)				
R=.35570 R ² =.12652, Adj. R ² =-.09994 F=.55870 p=.782				
Parental Use of Physical Force	3.60668	.23863	1.015	.319
Parental Verbal Aggression	- 2.84011	-.21184	- .947	.352
Single Parent	.13816	.00632	.034	.973
Sex of Responding Parent	2.37505	.09802	.504	.618
Parent's Years of Education	.31527	.09441	.458	.651
Sex of Child	4.16512	.16588	.867	.393
Age of Child	- .70550	-.11980	- .614	.545

N = Minimum number of cases for pairwise deletion.

Table 7-4. Multiple Regression Equations With Self-Esteem as a Predictor Variable

Independent Variable	Regression Coefficient	Beta	t	p
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A. Peabody Individual Achievement Test

Standard Scores (N=25)

R=.73364 R²=.53823, Adj. R²=.30735 F=2.33116 p=.071

Parental Use of Physical Force	- 19.3845	- .0837	- .370	.716
Parental Verbal Aggression	- 36.8998	- .1796	- .836	.415
Single Parent	72.7924	.2174	1.229	.237
Sex of Responding Parent	-126.5738	- .3408	-1.848	.083
Parent's Years of Education	28.7882	.5626	2.877	.011
Sex of Child	-118.2719	- .3073	-1.678	.113
Age of Child	20.6909	.2292	1.235	.235
Piers-Harris Self-Concept Score	- 1.5989	- .1043	- .574	.574

B. Peabody Picture Vocabulary Test

Standard Score (N=33)

R=.56683 R²=.3213, Adj. R²=.09507 F=1.420 p=.239

Parental Use of Physical Force	7.6919	.4020	1.795	.085
Parental Verbal Aggression	- 11.0894	- .6533	-3.074	.005
Single Parent	- .1138	- .0041	- .024	.981
Sex of Responding Parent	- 1.9872	- .0647	- .355	.726
Parent's Years of Education	.2066	.2854	1.475	.153
Sex of Child	- 7.3379	- .2308	-1.273	.215
Age of Child	1.0179	.1365	.743	.465
Piers-Harris Self-Concept Score	- .1592	- .1257	- .699	.491

C. WISC-R Digit Span (N=26)

R=.62677 R²=.3928, Adj. R²=.10711 F=1.375 p=.275

Parental Use of Physical Force	- 1.6265	- .3677	-1.461	.162
Parental Verbal Aggression	.5671	.1445	.605	.553
Single Parent	.8453	.1322	.672	.511
Sex of Responding Parent	- .7252	- .1022	- .498	.625
Parent's Years of Education	.3846	.3935	1.809	.088
Sex of Child	- 2.1953	- .2987	-1.466	.161
Age of Child	- .1531	- .0888	- .430	.673
Piers-Harris Self-Concept Score	.0372	.1271	.629	.538

**Table 7-4. Multiple Regression Equations With Self-Esteem as a Predictor Variable
(Continued)**

Independent Variable	Regression Coefficient	Beta	t	p
D. Nowicki-Strickland Lifespan External Locus of Control Test (N=35) R=.69773 R ² =.48682, Adj. R ² =.32892 F=3.083 p=.013				
Parental Use of Physical Force	3.3826	.4998	2.671	.013
Parental Verbal Aggression	- 1.3150	-.2190	-1.234	.228
Single Parent	- 1.2194	-.1246	-.852	.402
Sex of Responding Parent	1.2363	.1139	.747	.462
Parent's Years of Education	- .4175	-.2793	-1.727	.096
Sex of Child	- 2.5483	-.2266	-1.496	.147
Age of Child	- .5390	-.2044	-1.331	.195
Piers-Harris Self-Concept Score	- .0249	-.0556	-.370	.714
E. Matching Familiar Figures Test (N=26) R=.33014 R ² =.1089, Adj. R ² =-.3103 F=.25995 p=.970				
Parental Use of Physical Force	.1539	.2007	.658	.519
Parental Verbal Aggression	- .0650	-.0956	-.331	.745
Single Parent	.1068	.0964	.404	.691
Sex of Responding Parent	.1607	.1307	.526	.606
Parent's Years of Education	.0060	.0358	.136	.893
Sex of Child	.2593	.2035	.825	.421
Age of Child	- .0222	-.0746	-.298	.769
Piers-Harris Self-Concept Score	- .0109	-.2152	-.879	.392

N = Minimum number of cases for pairwise deletion.

produced similar results. The results presented in the chapter are from the pairwise regression.

Peabody Individual Achievement Test (Standard Scores)

Section A of Table 7-3 shows that of the variables included in the equation, parent educational level, sex of responding parent, and the child's sex are the most reliable predictors of children's achievement scores. The relationship between parent educational level and children's school performance is consistent with other research on this relationship (Hilliard and Roth, 1969; Coleman, 1966). There are both attitudinal and behavioral reasons for this. If we assume that level of education is associated with school success, then parents' educational level could be expected to translate into positive attitudes toward school. One would expect these parents to more consistently reward children's efforts at school-related tasks (Garbarino and Asp, 1982, p. 141).

They might also be assumed to have a better understanding of child development which would help them to adjust expectations of their children to those which they are developmentally capable of reaching. This would encourage greater acceptance of the children and less frustration with their efforts at autonomy.

The educational level of the parent has also been associated with the parent's language style with the child. Better educated parents speak more frequently to their children about objects and events outside the context of the parent-child relationship. The content orientation of this language style fosters school success.

The relationship of sex of respondent to children's achievement is more difficult to understand. Male respondents had children with lower achievement scores. A review of the interviews suggests that this

apparent relationship may be due to characteristics of the sample. Of the eight male respondents, four had children with symptoms of severe thought disorders. Two were actually receiving antipsychotic medication because of the severity of their problems. The child of a fifth male respondent had missed a lot of school due to the need for repeated surgeries. These child characteristics probably had more to do with the lower achievement scores among the male respondents' children than the sex of the respondent.

The relationship of the child's sex to achievement is not surprising. Girls had higher achievement scores. This is consistent with the fact that at the elementary school level, girls are more "in tune" with traditional school behaviors. Socialization to the feminine sex role encourages many of the behaviors associated with elementary school success: sitting still, fine motor coordination, etc.

Parental violence does not appear in the regression equation as a significant predictor of children's achievement. Its impact seems to be felt most in the development of cognitive style. Children's failure to keep pace with their non-abused peers in the development of internalized locus of control, and attention span apparently prevents the information processing necessary to master content areas measured on achievement tests. This would explain the relationship observed in the bivariate analysis between parental force and children's achievement scores.

Peabody Picture Vocabulary Test

Section B of Table 7-3 shows that of the variables included in the equation, parental verbal aggression is the most reliable predictor of children's language scores. There is a strong linear relationship (Beta = -.62) between parental verbal aggression and children's performance on

the Peabody Picture Vocabulary Test; increases in aggression are associated with declines in performance.

Other research associates speech and language delays with the experience of physical violence (Blager, 1979; Green, 19781; Money, 1982; Kempe and Helfer, 1980; Martin, 1979; Allen and Wasserman, 1985). This research did not find this relationship. However, it does establish parental verbal aggression as one of the factors associated with children's language development. Moreover, it shows that verbal aggression is associated with linguistic deficits, even after controlling for parental use of physical force.

Differences in language development can be the result of either cultural deprivation or a failure to use language to communicate ideas. The regression equation controls for parent educational level. Assuming the higher educational level of the parent, the less the likelihood of cultural deprivation, it would appear that verbal aggression impairs to functional use of language. Children raised by a verbally aggressive parent have impairments in their ability to use language to express content. This is consistent with the work of Bateson (1960), Jackson (1967) and Walzlawick (1967) on the effect of other types of family disorganization on language development. It is also consistent with the work of Kempe and Helfer (1980) and Blager (1979) on the effect of physical violence. "Regardless of the amount of talking they did, they [the children] avoided any real contact through communication" (Blager, 1979, p. 92). This research suggests that the effect is similar for children exposed to verbal aggression. These children are less able than their peers to utilize the communicative aspects of language.

Wechsler Intelligence Scale for Children - Digit Span Score

Section C of Table 7-3 shows that of the variables used in this study, parents' level of education is the best predictor of the Digit Span measure of children's memory. Parental use of physical force appears negatively related to children's memory scores.

The predictive value of parents' educational level on this aspect of cognitive style is not surprising. More highly educated parents would be expected to be more aware of the necessity of consistency for the child's cognitive development. Higher parent educational level is also associated with behaviors which foster memory skills. Specifically these parents encourage goal-setting behaviors and patterns of delayed gratification (Kohn, 1969). They also would be expected to engage in activities such as reading to their children and telling rhymes, etc. These allow children experience in being able to reflect back on things.

The relationship of parental use of physical force to children's memory scores is probably based on the effect the experience of parental violence has on the child's ability to focus on a task. For example, inconsistent parenting inhibits the attachment process between parents and their children. This affects the child's ability to predict on the basis of past experiences. Parental force also fosters "sensory muting" which results in an inhibition of the child's attending behaviors (Kempe and Helfer, 1980, p. 38).

Nowicki-Strickland Lifespan Locus of Control Test

The regression analysis summarized in Part D of Table 7-3 shows that parental use of force is the most reliable predictor of the degree to which children exhibit an externalized locus of control. This is important because it separates the effect of parental aggression on this

variable from socioeconomic (parent educational level) and maturational (child's age) influences. Children exposed to violence grow up feeling out of control (Kempe and Helfer, 1980). In the course of normal development, children develop a more internalized locus of control as they move from a diffuse to integrated self-identity. As children's sense of self grows stronger, they become more capable of competency (Erikson, 1963); intellectual abstraction (Kagan, 1984) and moral decisions based more on internal values than external agents of social control (Kohlberg, 1969). Research by Battle and Rotter (1963) indicates that the process of internalization encourages children to engage in prosocial behavior. Contingency reinforcement of rewards as an outcome of their effort increases their interest in participating in the social system for the purpose of securing future benefits.

Autonomy is not encouraged in the abusive parent-child relationship. The enmeshment which characterizes this interaction makes it difficult for either parent or child to move from it and "get on with their own life." Children's difficulty in self-differentiation is implicit in the depressed locus of control scores observed for the high violence group.

Crandell (1965) describes the maturational sequence of locus control acquisition as one which allows children to first accept responsibility for their successes and then eventually for their failures. Slade et al. (1984) specify abused children's inability to accept responsibility for failure as the point at which their locus of control is impaired. If this is true, academic tasks would become increasingly more difficult for children since efforts to perform would imply an openness to criticism and correction.

This research does not differentiate children's ability to assume responsibility for success or failure. However, the average age of the children in the sample (10.9) is the age at which Crandell says the shift toward responsibility for failure begins (Crandell, 1965). It may be that parental violence so erodes the child's progress toward competency that they develop behaviors of learned helplessness and inability to take risks to avoid attributions of failure. These behaviors express themselves as a disinterest in learning, resistance to change or lack of motivation. They may in fact mask the child's effort to hold on to a past success.

Matching Familiar Figures Test (MFFT)

None of the predictor variables appear to be particularly associated with measures of impulsivity. This is surprising both in terms of Kagan's work on children's cognitive style (1964, 1984) and the clinical impressions of people working with abused children (Martin, 1979). Kagan discusses the process of how children develop patterns of impulsive or reflective problem solving styles in terms of their early experiences.

On the basis of his discussion, one would expect that parents' years of education would be a strong predictor of children's scores on the MFFT. Lower parental levels of education would be expected to predict higher scores on measures of impulsivity in children.

The clinical work of Helfer (1980) and Martin (1979) describes the abused child as hypervigilant, easily distractible and having a short attention span. These are all phrases used to describe the impulsive learner. Parental use of aggression would therefore be expected to predict higher impulsivity scores.

There are at least two possible reasons why these expected relationships did not appear in the regression analysis. In his discussion of impulsivity, Kagan also discusses a third type of learning style which he terms the "impulsive accurate" (Kagan, 1965). These are children who have a short latency to first response but who also have few errors. It is possible, that there were enough of these children represented in the sample to affect the predictive power of the MFFT.

The apparent lack of relationship between the parental aggression and the MFFT may be due to a problem of construct validity. It is possible that the impulsive learning style operationalized by Kagan is qualitatively different from the apparently impulsive behavior observed in abused children. Kagan describes impulsivity as a failure on the part of the child to scan the whole visual field before making a response. The apparent impulsivity of the abused child may be less a failure to scan than an effort to respond to all environmental cues at once.

Self-Esteem

The theoretical model which formed the basis of this study predicted that experiences of parental aggression would have a serious negative impact on children's self-esteem. The resulting low self-evaluation was expected to produce delays in cognitive functioning as well as deficiencies in cognitive style.

The regression analysis does not support this expected relationship. As indicated in Section F, Table 7-3, the parental use of aggression, both verbal and physical does not appear to be strongly related to self-esteem. The relationship which exists is unclear. Self-esteem appears positively associated with increased use of parental violence and negatively associated with parental verbal aggression. Table

7-4 indicates that self-esteem does not appear to be related to the measures of cognitive style and cognitive functioning used in this study.

Why the experience of parental violence and parental verbal aggression appear to have opposite effects on self-esteem may be due to the non-linear relationship which exists between parental violence and self-esteem scores. The bivariate analysis indicates that increases in parental use of verbal aggression are related to steadily decreasing scores on measures of self-esteem. This same pattern is not observed in the relationship between parental violence and self-esteem. Children in the middle violence group have higher scores on the Piers Harris Self-Concept Scale than either the low or high violence groups. There are several theoretical reasons why this type of relationship exists between parental violence and self-esteem.

Research on children from dysfunctional families describes how difficult it is for them to arrive at self-differentiation (Mishler and Waxler, 1965). The development of self-esteem requires the articulation of a self-concept which one can evaluate. It is possible that children who experience parental violence frequently enough to place them in the higher violence group lack a strong enough sense of self to respond accurately about what they like to do or to questions about what they do well. This may lead to a random response pattern to cover their confusion.

We also know that children living in other high stress environments such as alcoholism, develop patterns of denial to insulate themselves from the stress around them. One of the classic types is the mascot who exudes self-confidence as a way of keeping people at a safe distance. It is possible that children who are exposed to high levels of violence

develop similar coping mechanisms as a way of surviving parental assaults.

Children who are frequently exposed to violence are often characterized as needing to please adults. Many of the children in the sample had worked in a therapeutic setting with me for several years. It is possible that their responses reflected things they thought I would like to hear rather than an accurate evaluation of themselves.

Families which have high levels of parental aggression are also frequently characterized by role reversals between the parent and child. The child assumes responsibility for the care and well-being of the parent and often of the household. Items on the Piers-Harris assess information about activities closely associated with school and play experiences. These are areas where most children achieve self-mastery. However, for the children who feel responsible for a violent parent, affirmative responses to items like "I'm good in music" may produce a high "positive" self-esteem score but reveal very little about how the children actually evaluate themselves. It is also possible that because the relationship between physical force and self-esteem is non-linear, the regression line may not reflect the actual relationship between these variables.

Parental verbal aggression and parental physical aggression also appear to have opposite effects on language development as well as the cognitive style indicators of memory, impulsivity and locus of control. As indicated in Table 7-3, the effect of parental violence on language development appears to be positive. The experience of parental verbal aggression appears positively related to children's memory and locus of control scores as well as with reflective problem solving because lower score meanse greater internality.

A reexamination of the bivariate relationships provides a possible explanation for this. The relationship of parental violence and scores on both the Peabody Picture Vocabulary Test (PPVT) is non-linear. Children in the middle violence group have higher scores on the PPVT than either the low or high violence groups. The relationship between parental verbal aggression and the cognitive indicators of locus of control and memory are also non-linear. Scores for children from the middle group indicate that their performance on each of these measures of cognitive style is better than the performance of children in either the low or high groups. Children in this group also appear to be more impulsive than those in either the low or high groups.

As in the case of the measure of the relationship of physical force and self-esteem, non-linearity may account for the apparently positive relationship of physical force to language development. It may also account for the apparently positive relationship between parental verbal aggression and scores on measures of memory and locus of control. It may be that a linear model such as a regression equation obscures the nature of the actual relationship between these variables.

Analysis of the R^2 and adjusted R^2 values indicates that the variables specified in the regression equation when taken together, are fairly strong predictors of children's performance on several of the cognitive measures used in the study. This is particularly true for the achievement and locus of control scores. The F values for these equations are significant at the .04 (achievement) and .005 (locus of control) levels.

This analysis establishes the strong predictive power of both parental verbal aggression and parental use of physical force for two of the measures of cognitive functioning. Parental verbal aggression is

a strong predictor of language delays in children. Parental use of physical force is a strong predictor of externalized locus of control. These findings suggest that children exposed to parental aggression enter school with two important variations of cognitive style. Delays in language development and the passivity associated with an externalized locus of control may inhibit their ability to respond successfully to the classroom environment. These information processing problems may account for the depressed achievement scores of abused children.

Chapter 8

CONCLUSIONS

The purpose of this study was to determine if parental verbal aggression and parental use of violence influence the developing child in the areas of cognitive style, cognitive functioning and self-esteem. A second analysis involved the association of parental aggression and the child's placement in special education.

The sample was drawn from the population of children attending the Portsmouth, N.H. elementary schools during the years 1983-1985. It was stratified on the basis of whether or not the children were labeled emotionally handicapped and consisted of fifty-two children. Twenty-nine of the fifty-two children in the sample were labeled emotionally handicapped and had been assigned to the special education program "KIDS." The other twenty-three children were matched to the special education group by sex, age and neighborhood. The primary parent of each child in the sample was interviewed.

Self-Esteem as an Intervening Variable

The study hypothesized that self-esteem played an intervening role between parental use of force and/or verbal aggression and the child's cognitive development. The expectation was that the use of parental aggression would inhibit the development of the child's self-esteem. The resulting lower self-esteem was expected to result in cognitive delays. This relationship was not observed. Contrary to theoretical formulations about its inhibiting effect on achievement, self-esteem was

not found to be significantly correlated to any of the cognitive indicators used in this study. It may be that self-esteem affects achievement in ways which are not measured here.

The apparent lack of relationship between parent aggression and self-esteem is contrary to the expectations of the study's theoretical model. It may reflect one of several dynamics observed in abusive parent-child relationships. Children from abusive families may lack the self-differentiation necessary to adequately define what they do well. The skill areas tested by the Piers Harris may not reflect competencies upon which abused children evaluate themselves. Or it may be that children who are exposed to high levels of parental aggression engage in a process of reaction formation to defend themselves from parental hostility. That is, at some point the children succeed in blocking out parental messages about themselves. This is consistent with descriptions of children living in other types of high stress situations as well as Helfer's description of "sensory muting in abused children" (Kempe and Helfer, 1980, p. 38).

Parental Aggression and Cognitive Development. The regression analysis revealed that verbal aggression is directly related to language development. The associated delays may foster a cognitive style which has negative consequences for achievement.

Parental violence seems to undermine children's development of an internalized locus of control when verbal aggression is controlled for. This suggests that the use of force even in a "supportive" environment, may be detrimental to the child's cognitive development.

The findings about the nature of the relationship between parental aggression and children's cognitive development have implications for further study of the effects of parental violence. They may also

contribute to our understanding of the apparent intergenerational cycle of child abuse.

Parental Aggression and Locus of Control

The fact that, even when verbal aggression is partialled out, there is a relationship between parental violence and the development of the child's internalized locus of control, is quite important. Proponents of physical punishment believe that if the parent and child are not involved in a negative verbal exchange, but rather that the parent is acting out of his/her concern for the benefit of the child, the effects of physical force will be different. For some areas of development this may be true. However, this study provides evidence that parental use of physical force, with or without verbal aggression, is associated with developmental impairment in children's ability to establish internalized control of their successes and failures.

The effect of parental physical aggression on the child's locus of control may have other implications for understanding the effects of violence. Research on locus of control associates internalized control with such prosocial behavior as the ability to delay gratification (Bolick and Nowicki, 1984, p. 84) and persistence at a task (Grimes, 1981). Kohlberg also refers to the cognitive correlates of internalization as prerequisites for prosocial behavior. A better understanding of the relationship between parental aggression and locus of control may provide insight into the relationship between the experience of violence as a child and the incidence of antisocial behaviors as adolescents and adults (Rhoades and Parker, 1981, p. 27; Sandberg and Straus, 1984, p. 4).

Handicapped Children are Victims of Violence

The handicapped children in the sample experienced parental aggression more often and at a greater level of severity than did their non-handicapped peers. Parental aggression - both verbal aggression and violence - was found to be higher in the group identified as emotionally handicapped. This research confirms the widely held belief that there is a higher incidence of parental aggression against handicapped children (in this case emotionally disturbed children).

Because of the interactional nature of the parent child relationship, it is impossible to firmly establish the causal direction of this relationship. However, the fact that the study did not draw from a group of children who had been identified as abused and yet found higher rates of abuse among the handicapped group cannot be dismissed.

Stimulating supportive parent interactions are associated with greater skill acquisition and higher levels of both cognitive and social behavior for children with identifiable handicaps such as Downs Syndrome (Sameroff, 1975). It seems reasonable to assume then that the effects of other more subtle cognitive deficiencies would also vary as a function of differential parent-child interactions.

In the case of the relationship between parental violence and child characteristics of emotional disturbance, it appears that the use of violent measures by the parent increases the likelihood of the child developing characteristics which inhibit their cognitive development.

Handicapped vs. Comparison Groups

The comparison of the two groups provided interesting qualitative information about parental aggression. Most parents in both the handicapped and comparison groups accepted the idea that certain

situations were serious enough to warrant the use of physical punishment against their children. Only two of the fifty-two parents interviewed said that they had never used physical punishment in disciplining their children. Another interesting aspect of parents' attitudes toward violence emerged from the interview process. They were asked if their children had ever hit them and if so, what had been their response. It was rather surprising to discover that 20 of the fifty-two children had been physically aggressive toward their parents. What seems more important, however, is that not one of the parents who reported an aggressive incident had responded by telling the child that it was wrong. Failure to do this suggests that parents do not define the aggressive behavior as inappropriate.

While both groups appeared to accept the use of force against children, there was variation between the groups in terms of the type of physical aggression parents employed. The incidence of severe assault was higher for the handicapped group. Children from this group were exposed to more extreme forms of parental violence. This occurred on a more frequent basis than did the parental force reported by the comparison group.

Parental violence in the handicapped group frequently occurred as an expression of parental frustration. It seemed to be employed when alternative methods failed to produce desired results. This was not true of most of the comparison group respondents. The sequence toward violence for these parents was different in that it was in response to an infraction of a previously decided family rule. Its potential use as a consequence was also known to the child prior to the precipitating event.

This suggests that although both groups of parents enter the conflict situation with the intention of doing what's best for their

children, parents in the handicapped group lose sight of this goal when the child fails to cooperate.

Intergenerational Cycle

The relationship between parental verbal aggression and children's language development as well as the relationship between parental violence and externalized locus of control may increase our understanding of the intergenerational transmission of child abuse. It may be that cognitive deficits in childhood explain some of the observed adult profile.

Both Blager (1979) and Helfer (1980) describe abused children's language development as resistant to developing interpersonal connection: "their senses are trained in such a way that to use them for receiving or transmitting positive messages is not part of their communication system" (Kempe and Helfer, 1980, p. 39). What they describe closely approximates the work of the Bateson group on communication in dysfunctional families as well as the work of Minuchin (1967) with families of juvenile delinquents. In these families, words are used less to connect interpersonally than to keep people at a distance. Bowen says that the function of language in these families is to sustain the family as an "undifferentiated ego mass" (Bowen, 1976). Differentiation is avoided lest it result in expulsion or conflict.

Data from interviews with the high violence parents suggests that they also fear conflict. Because of this fear, they deny its existence and avoid learning ways of dealing with it. The sequence to violence appears to be one that stems less from a willingness to engage in conflict than one which originates in pseudomutuality and deteriorates into destruction. It is possible that the language pattern in abusive

families is intended to avoid differentiation and/or conflict: "the less said the better." These children enter adulthood without experience in communication for the purpose of conflict resolution.

Patterns of learned helplessness acquired in childhood may be associated with an apparent lack of motivation and persistence in adulthood. Seeman describes the sense of powerlessness associated with an externalized locus of control as alienation (1957). An extended experience of missing the connection between one's behavior and the surrounding environment prevents social integration in at least two ways. Lack of experience in an ordered environment inhibits behaviors such as goal setting and delayed gratification which to some extent rely on a person's ability to predict and make inferences. Failure to make associations based on these skills cloud the person's perception as to how to obtain the material rewards offered in a culture.

Perhaps more importantly, this alienating childhood experience limits a person's ability to overcome cognitive impairments. The reason for this is that the lack of differentiation associated with parental aggression prevents the person from identifying their needs (Kempe and Helfer, 1980). They are unable to discriminate the experiences in the past which may have resulted in their current problems. They have also failed to establish other people as agents of help and need satisfaction. People with childhood histories of abuse are denied access to both the material and emotional networks which facilitate the social integration of most adults.

Acknowledgement that abusive parents experience life this way is implicit in both Helfer's W.A.R. program (1980) and Parents Anonymous (Lieber, 1969). Both programs focus on group participation. The goal for each is for parents to achieve self definitions as members of a group

who are able to identify their own needs and seek help for them. In doing so, these intervention techniques hope to effect a change in the person's self-perception as well as their definition of the world around them.

The findings of this study suggest that an understanding of the intergenerational transmission of child abuse involves cognitive deficits as well as behavioral and psychiatric processes. This interpretation calls for intervention at the dyadic rather than individual level. It identifies the enmeshment of parent and child in terms of definitions of the world as contributing to sustained patterns of parental aggression. The development of greater self-differentiation and competency in both parent and child might represent an important step in reducing parental violence.

APPENDIX I

INTERVIEW SCHEDULE

Presentation Speech

Many parents find problems coming up in trying to bring up their children. They often work out very good ways of dealing with them. I am trying to collect the different experiences of lots of families, to find out what sorts of methods are most widely used and how they work out (adapted Newson, 1964).

First, though, I need to find out a little about the people who live here.

Item

1. Could you tell me how many people are living here? _____ adults
_____ children
2. Can you tell me a little about them one by one? Let's start with yourself, then tell me about the other adults.

aName

bRelation to Respondent

cSex

dMarital Status

eEducational Level

fOccupation

gWork Hours

hShift

(Repeated for each adult present)

3. Now I'd like to hear about the children. Will you answer some questions about them, starting with the oldest one.

aName

bRelation to Respondent

cSex

dExpected Sex

eAge

fYears in School

gGrade Level

hRdg. Problem

iPreg. Problem

jBirth Problem

(Repeated for each child)

If "yes" to g - k,

When did you first notice the difficulty?

Has your child's problem required any special services?

If "yes",

Do you feel you've been actively involved in planning for your child's special needs?

Do you have any ideas about what's caused your child's special needs?

4. Do you have any other children not living with you right now?

If yes,

aName

bRelation to Respondent

cSex

dExpected Sex

eAge

fYears in School

gGrade Level

hRdg. Problem

iPreg. Problem

jBirth Problem

(Repeated for each child)

Since this study is looking at children, in the ____ grade of your school (control group.) in the KIDS program (experimental group) the rest of the questions will all be about (child's name).

5. Has _____ ever been separated from you for more than a day or two?

N = 0

Y = 1

6. If yes, why?

1. Child's illness

2. Parent illness

3. Job obligations

4. Foster care

5. Other

6. More than one

7. Does your child play with other children?

N = 0

Y = 1

8. If yes, are they:

1. Brothers and sisters

2. Non-related children

9. If no, what does s/he do to pass the time?

I am curious about how you manage to keep in touch with friends and relatives with all the demands of child care.

10. How often do you get to see your family each month?

_____ times

11. How often do you get to talk to them on the phone each month?

_____ times

12. How about friends - how often do you get to spend time with them each month?

_____ times

13. How often are you able to keep in touch with them by phone?

_____ times per _____

14. Is there anyone close by who you can rely on for advice about the children?

Y = 1 N = 0

15. If yes, who?

- | | | |
|-----------|---------------------------|-----------------|
| 1. Mother | 2. Your sisters, brothers | 3. Their father |
| 4. Doctor | 5. Friend | 6. Other |

16. How about child care? Do you have anyone close by who can watch the children for you?

Y = 1 N = 0

If yes, who?

- | | | |
|---------------|---------------------------|-----------------|
| 1. Mother | 2. Your brothers, sisters | 3. Their father |
| 4. Babysitter | 5. Neighbor | 6. Other |

17. What are your goals of child rearing (prompt - what are you trying to achieve?)

18. Which three qualities listed on this card would you say are the most desirable for a child your child's age to have?
19. Which one of these three is the most desirable of all?
20. All of these may be desirable, but could you tell me which three you consider least important?
21. And which one of these three is least important of all?
22. Is there anything you feel your child should know how to do by now that perhaps s/he's still having trouble with?

Y = 1

N = 0

23. If yes, what _____.
24. What sorts of things do you enjoy about him/her?
25. Do you show affection towards each other quite a lot or are you fairly reserved with one another?
1. Very reserved 2. somewhat reserved
3. somewhat demonstrative 4. very demonstrative
26. Do you think kissing and cuddling should be discouraged at this age?

Y = 1

N = 0

27. What about disagreements? What sort of things make you get on each others nerves?
28. Does s/he usually obey you fairly quickly or do you have to keep on him/her to get things done?
29. How much does it bother you when s/he gets really dirty while playing?
1. Very little 2. Somewhat 3. Very much
30. What do you do to make him or her keep clean?
31. If s/he refused to do something, what would you do then?
32. How much of a fuss does s/he make when s/he has to stop playing?

33. What do you do when s/he causes a fuss (e.g. it is time to eat and s/he wants to finish something s/he started) what do you do then?

34. If s/he refused to do something which s/he really must do, what happens then?

Here are some things parents use to get their child to do what they're told. How often do you:

	Never	Rarely	Occasion.	Smtimes	Freq.
35. Promise him/her a reward for being good	5	4	3	2	1
36. Say s/he can't have something s/he likes	5	4	3	2	1
37. Send to bed	5	4	3	2	1
38. Send to his/her room until s/he's able to do what s/he's told	5	4	3	2	1
39. Tell him/her you won't love him/ her if s/he behaves that way	5	4	3	2	1
40. Say you will have to send him/ her away	5	4	3	2	1
41. Say that you'll go away if s/he's naughty	5	4	3	2	1
43. Frighten him/her with someone else: teacher, father, someone like that	5	4	3	2	1

Sometimes parents feel that a situation is so serious that none of the things we've talked about really keeps the child from repeating the behavior. At those times, parents may feel the child should be spanked to "teach him/her a lesson."

44. How do you feel about spanking? Do you think it's necessary to spank children?

Y = 1 N = 0

45. Do you have to be really angry to spank your child or do you spank him/her simply as punishment?

46. Do you think spanking does any good?

Y = 1 N = 0

47. Do you believe in spanking?

Y = 1 N = 0

48. Is there anything else you do when s/he's naughty?

49. Do you think it's important for him/her to say s/he's sorry when having done something wrong?

Y = 1 N = 0

50. How about when you've done something to your child which you feel was inappropriate. Do you feel it's important for you to apologize to him/her?

Y = 1 N = 0

51. Do you ever make him/her apologize even when s/he doesn't want to?

Y = 1 N = 0

52. Does your child ever try to hit you or hurt you in any way?

53. What would you do if s/he does?

54. What about being fresh and answering back? Do you allow that?

Y = 1 N = 0

55. Could you give me a sample of the kind of freshness you'd allow and where you'd "draw the line"

Allowed:

Not allowed:

56. Does your child have real temper tantrums?

Y = 1 N = 0

If yes, about how often?

most days 2x wk. or more 1x per wk. rarely

57. What sets off tantruming behavior?

58. How do you deal with it?

59. In general, are you happy about how you deal with discipline?

Y = 1 N = 0

Do you sometimes find yourself doing things you don't approve of?

Y = 1 N = 0

60. Would you say you've changed in your ideas about bringing up children since you started?

TO: Parents of Children in "KIDS"

FROM: Susan Craig

RE: Susan's Dissertation Research

DATE:

I am currently finishing work for my Ph.D. at the University of New Hampshire. As part of the research project I am doing, I'd like to interview about 100 parents. The interviews will take about an hour of your time. The general topic will concern child rearing techniques. All of the information will be kept confidential: neither therapists nor school personnel will have access to it. The paper itself will report group attitudes, etc.

I am also asking your permission to involve your child in this study by analyzing some of the testing s/he has had done since his/her entrance into "KIDS." I would also like to give him/her some tests on how s/he solves problems and makes decisions. Again, all the testing information will be confidential, none of the additional testing will go into your child's folder. I will however, be very glad to go over any of it with you.

You would be helping me a great deal by agreeing to participate in this study. I feel what I learn doing it may improve the services we are able to offer in the "KIDS" program. I realize, however, that you may have reasons for choosing not to be interviewed. I certainly respect your right to decide this.

If you do decide to be interviewed, I will be more than happy to schedule the interviews at your convenience. Any testing that needs to

be done can be completed either at school or when I see your child this summer.

In any case, could you please return the enclosed slip as soon as possible. I have enclosed a self-addressed envelope.

Many thanks for your cooperation, I really appreciate it.

☐ I will take part in this study.
☐ I give my permission for my child's participation in the
testing which may be required.

☐ I will not take part in this study.

I understand that the confidentiality of all data and records associated with my participation in this research, including my identity will be fully maintained within the extent of the law.

Signature: _____

Date: _____

Dear

I am currently finishing work for my Ph.D. at the University of New Hampshire. As part of the research project I am doing, I would like to interview about 100 parents with children in the Portsmouth Elementary Schools. You were chosen to participate in this study by a random selection process. The interview will take about an hour of your time. The general topic will concern child rearing techniques. All of the information will be kept confidential. School personnel will have no access to it. The paper will report group attitudes, etc.

I am also asking your permission to involve your child in this study by analyzing some of the standardized tests which are part of his/her school record. I would also like to have him/her take some additional tests. These will include measures of self-esteem, problem solving, memory and achievement. This testing can be done within an hour. It would not be done at a time which interferes with your child's school schedule. All the test information will be confidential. None of it will go into your child's folder. I will however, be very glad to go over any of it with you.

I would greatly appreciate your participation in this study. I realize however, that you may have reasons for choosing not to be interviewed. I certainly respect your right to decide this.

If you do decide to be interviewed I will be more than happy to schedule the interviews at your convenience. I will also arrange your child's testing schedule so that it causes as little disruption to your family's routine as possible.

In any case, could you please return the enclosed slip as soon as possible. I have enclosed a self-addressed envelope.

Many thanks for your cooperation. I really appreciate it.

----- I will take part in this study.
| | I give my permission for my child's participation in the
| | testing which may be required.

| | I will not take part in this study.

Parent signature: _____

Date: _____

APPENDIX II

NOTES ON LOGO

Originally, mastery of the computer language "Logo" was to be used as a measure of cognitive development. "Logo" is a graphics computer program which was developed by Seymour Papert. By manipulating a "turtle," children have the opportunity to "animate in a very personal way what looks like abstract ideas" (Papert, 1980, p. 103). Papert describes "logo" as a perfect model of Piaget's theory of cognitive development. He sees the child's manipulation of the "turtle" as a sensorimotor task which allows one to "view the interplay between the concrete, configural, personal and abstract" (Papert, 1980, p. 104).

Observation of the child's interaction with the microworld of "Logo" seemed an ideal way of observing the process of cognition. It could provide information about how children learn rather than what children learn which is the focus of measures of achievement.

However, as the study developed, several problems came up in using "Logo" mastery as a measure of cognitive development. The children in the sample were from over eighteen different classrooms located in five different schools. Some of their classrooms had computers; others did not. Structuring computer time with them for the length of time required to teach them the basics of "Logo" proved to be logistically impossible.

More importantly, research into work with "Logo" revealed a resistance on the part of its developers toward developing a quantitative measure of mastery of the language (Higginson, 1985, p. 34). Rather, these researchers discuss "Logo" qualitatively as a philosophy of education which is best described as systemic or contextual. They

discuss the culture of "Logo" where the "turtle" continually allows the child to reorganize or develop new microworlds to integrate or "blend" knowledge through. Within this context, "Logo" can never be mastered any more than art, music, or poetry can. Rather, each interaction with the "turtle" carries the potential for a new connection, a new insight.

However, the possibility of observing the learning process still seemed enticing. It was therefore decided that a small subsample of the handicapped group would be instructed in the mechanics of "Logo" and allowed access to the "turtle" for a period of several weeks. Observations of these children would be compared with observations of children in a regular classroom.

These observations suggest that for the most part, learning with "Logo" resembles learning in other process subjects such as reading and writing. Children vary in the amount of structure versus free experimentation they require before being comfortable with the "turtle."

Children who were more successful in other curriculum areas also appeared more willing to take risks and try more sophisticated procedures with the "turtle." However, the teachers of both the regular classroom and the handicapped group did cite different children whom they described as passive learners who appeared to take more initiative and display more sustained effort with the "turtle" than other subjects. This suggests that computer instruction may facilitate learning for this type of child.

Based on the observations of the handicapped children using "Logo", this type of instruction is apparently beneficial in several ways. One of the benefits of using "Logo" with these children was that there are no right or wrong ways of using it. Each experience of the "turtle" can be unique. This is a helpful manifestation of the uniqueness of each child which might facilitate the process of self-differentiation.

During the observation of the children with "Logo", they were frequently observed making comments like, "I'm pretty smart", "I'm smart at math" or at a younger age, "I can make you move anyway."

The control children were able to take over both how they did "Logo" and what they did with it seemed beneficial for children whose other life experiences are marked by passivity. One little girl was observed to be pushing the instructor away saying, "I want to do it my own way."

The children were observed to have a variety of ways of initiating contact with the "turtle." Some children created step by step procedures before they attempted work at the terminal. Other children resisted creating procedures but seemed to enjoy "playing" with the various shapes and colors the "turtle" could produce. One child was particularly interested in replicating a three dimensional figure he had made in art. Such activities provide children and their teachers with insights into how they approach learning and what techniques work best for them. Of particular interest was the young girl who's life was marked by a prolonged exposure to both physical and sexual abuse. Her way of engaging the "turtle" was to play tricks on it - for example, she would type in procedures on the graphic screen rather than the split screen which allowed one to see what one was typing. This made drawing with the "turtle" more difficult. When asked why she enjoyed doing it this way, the child explained she wanted to see if the "turtle" could figure out her secret code: a telling statement on both her survival techniques and her need for understanding.

Teachers from both classrooms reported the need to provide external reinforcement for early efforts with "Logo." In other words, children needed a purpose for learning it. For children in the regular classroom this took the form of creating a book for Father's Day with their "Logo"

outputs. For the handicapped children, getting to print the pictures the "turtle" drew was purposeful enough to motivate performance.

The issue of purposeful learning is interesting in that it may relate to the locus of control findings. Children who perceived "Logo's" relationship to an end product were willing to participate in programming with the "turtle." However, until the purpose was defined for them, teachers of both groups of children did not perceive a high degree of motivation to learn "Logo." It is possible that learning "Logo" as well as learning other skills relies on the child's ability to relate its purpose to other parts of experience. This observation lends support to the idea that for achievement to occur, children must first experience their activity as a component of any outcomes which might follow.

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